

US Army Corps of Engineers Sacramento District  
Hawthorne Army Depot  
Hawthorne, Nevada

**Decision Document  
Solid Waste Management Unit I18  
Building 104-2 Hydrocarbon Spill**



**April 2002**

TETRA TECH  
180 Howard Street, Suite 250  
San Francisco, CA 94105





REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
**HAWTHORNE ARMY DEPOT**  
**1 SOUTH MAINE AVENUE**  
**HAWTHORNE, NV 89415-9404**

RECEIVED  
ENVIRONMENTAL  
PROTECTION

02 MAY -3 PM 2:00

Special Staff - Environmental

Mr. Eric Noack  
Division of Environmental Protection  
Bureau of Federal Facilities  
333 West Nye Lane  
Carson City, Nevada 89706-0851

Dear Mr. Noack:

Reference Decision Document, HWAAP-I18, Building 104-2 Hydrocarbon Spill, Hawthorne Army Depot, Hawthorne, Nevada, April 2002 (enclosure).

Referenced Decision Document is provided for your information and action. Request after your review and approval, a copy of the signed signature page be returned to HWAD in order to show response completed to higher headquarters.

Point of contact is Mr. Herman Millsap, SOSH-W-ENV, (775) 945-7317.

Sincerely,

Florentino F. Cardenas  
Civilian Executive Assistant

Enclosure

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MAY 03 2002

**Decision Document SWMU I18  
April 2002**

ENVIRONMENTAL PROTECTION

The selected remedy is protective of human health and the environment. It has been shown that a complete pathway to human health and the environment does not exist, and there is no potential for an exposure pathway to be completed in the future.

**US Army**

30 APR 2002

Anne L. Davis

Anne L. Davis  
Lieutenant Colonel, US Army  
Commanding

**State of Nevada**

5 July 2002

Paul Liebendorfer

Paul Liebendorfer  
Chief, Bureau of Federal Facilities

**Decision Document for Closure of  
Solid Waste Management Unit I18  
Hawthorne Army Depot  
Hawthorne, Nevada**

## **1 INTRODUCTION**

This decision document describes the rationale for the proposed closure of solid waste management unit (SWMU) I18, Building 104-2 Hydrocarbon Spill at the Hawthorne Army (HWAD), Hawthorne, Nevada. This SWMU is adjacent to a diesel-powered boiler in Building 104-2, where the underground storage tank for the diesel is northeast of the building. Tetra Tech, Inc. (Tt) prepared this document with the help of the US Army Corps of Engineers, Sacramento District (USACE) and HWAD for the Nevada Department of Environmental Protection (NDEP), the lead regulatory agency for environmental issues at HWAD.

Tt has performed remedial investigations and groundwater monitoring at HWAD since 1993, primarily at SWMUs designated by the Army and the NDEP. The purpose of the sampling was to determine the extent and degree of environmental impacts, if any, associated with activities performed at each SWMU. The primary goal of the investigation was to assess the environmental impacts and to report the findings, to present conclusions, and to recommend remediation, if necessary.

With guidance from the NDEP, Tt initially established basewide proposed closure goals (PCGs) for soil as acceptable levels so that SWMU closure could be recommended and to help direct the investigative efforts toward those SWMUs where the target analytes were of greatest concern. Since 1996, the NDEP has adopted the USEPA Region IX proposed remediation goals (PRGs) as action levels for hazardous waste chemicals in soil, as sited in the Nevada Administrative Code (NAC) Section 445A. One of the chemicals of concern at SWMU I18 is total petroleum hydrocarbons (TPH), which does not have a PRG action level. The previously initiated HWAD PCG for TPH of 100 mg/kg is equivalent NDEP action level for TPH listed in the NAC Section 445A.2272, and it will be used as the action level for comparison of the concentrations of this chemical of concern found in the soils at this site. Also, Tt established HWAD-specific groundwater action levels as acceptable concentrations to determine if further action would be required for analytes of concern in the groundwater. These action levels were used to guide the investigations and remedial actions and to compare them with the detected analytes in this report (see Appendix A).

## **2 SITE HISTORY**

During Tt's 1993 site inspection of SWMU I18, several pipes were found originating from the southwest side of Building 104-2, including an insulated steam line. These pipes terminated at the SWMU and may have been connected to a tank or boiler that has since been removed. Three underground vaults were found with metal covers containing high voltage electrical lines and transformers, which were labeled as containing polychlorinated biphenyl (PCBs). The soil berm at SWMU I18 is approximately three feet high and was reportedly designed to prevent surface

water from flooding this area and the underground vaults, which are topographically lower than the surrounding ground surface (Tt 1993).

The USACE, HWAD, and the NDEP agreed to define the boundaries of each SWMU using annotated monuments and survey pins. As part of Tt's field investigation, SWMU I18 was surveyed and survey monuments were constructed. A brass survey pin on the monument designates it as HWAAP-42-1996 and includes the SWMU number I18. Two corner pins were set and surveyed to define the SWMU boundary, with the monument as the north corner. The location of these corner markers and the SWMU boundary are shown on Figure 2. Survey data is presented in Appendix B.

During Tt's 2000 annual groundwater monitoring (Tt 2001), the groundwater elevation was measured at approximately 4,075 feet above mean sea level (msl) in monitoring wells IRPMW51 and IRPMW52. These wells are approximately 2,800 feet northwest (downgradient) of SWMU I18 in an area of relatively flat groundwater gradient at approximately 0.004 foot per foot. Based on this data, the calculated groundwater elevation at SWMU I18 is 4,088 above msl. Because the ground surface elevation at this SWMU is 4,300 above msl, the groundwater beneath SWMU I18 is at a depth of approximately 215 feet below ground surface (bgs).

### **3 SITE CONDITIONS**

SWMU I18 is in the southern portion of HWAD's central magazine area in the 104 Building Group, approximately 3,600 feet north of US Highway 95 and approximately 1,300 feet east of Corey Road (Figure 1). This SWMU is the open area between Building 104-2 and a low soil berm to the south and east of the building (Figure 2).

SWMU I18 is adjacent to Building 104-2, which contains a diesel-powered boiler. The diesel fuel is stored in an underground storage tank northeast of the building. The boiler reportedly has been in operation since the early 1940s (Tt 1993). During a site inspection in June 1991, the NDEP observed hydrocarbon-stained surface soils west of Building 104-2 and a liquid that was dripping from a pipe and flowing into a vault on the northwest side of this building. The standing water from this flow was described as having a significant hydrocarbon sheen.

### **4 INVESTIGATIONS**

Resource Application, Inc. (RAI) inspected SWMU I18 in 1992 (RAI 1992) and observed no hydrocarbon-stained soil nor liquids being released. RAI conducted no investigation activities and collected no samples at that time. No other previous soil or groundwater investigations have been performed at SWMU I18.

During Tt's 1994 remedial investigation, Norcal Geophysical Consultants, Inc., of Petaluma, California, performed a surface ground penetrating radar (SGPR) survey. Norcal found several pipes that terminated at this SWMU and that might have been connected to either a UST or a boiler. Norcal also found several underground utility vaults that contained transformers with PCBs and high voltage electrical lines. The SGPR survey at SWMU I18 was conducted to locate

any USTs or additional utility vaults that were not observed during the site inspection. Both USTs and underground utility vault locations are potential areas where the target analytes for this SWMU have been released. Norcal surveyed the 6,400-square-foot area with traverses, spaced ten feet apart. Norcal did not find any evidence of a UST and found only the underground utilities previously located during the site inspections. Tt used the results of this SGPR survey to avoid underground utilities during subsurface soil sampling but did not use them to direct the soil sampling tasks.

Tt observed no surface soil staining during the 1994 and 1997 remedial investigations and collected no surface soil samples.

During the 1994 investigation, Tt collected 34 near-surface soil samples, I18-HA01-1-S through I18-HA16-2-S (which included two sets of collocated duplicate samples), using a hand auger to assess potential near-surface releases of TPH and PCBs. All of the analytical results for these soil samples are included in Appendix C. These hand auger soil samples were collected at depths ranging from one to five feet bgs. At four locations the planned sampling program of collecting two soil samples at each hand auger location was not completed because either the unconsolidated soil would fill the boring before a sample could be collected or because refusal was encountered and the boring could not be advanced to the planned depth. An on-site USACE-approved mobile laboratory analyzed these samples. Most of these samples were screened using the enzyme immunoassay test kits by US Environmental Protection Agency (USEPA) Draft Method 4020 for the semiquantitative analysis of PCBs in soil.

During Tt's 1997 remedial investigation of SWMU I18, Tt drilled four hollow-stem auger (HSA) soil borings, SB02 through SB05, to collect four subsurface soil samples per boring. SB01 and SB02 were first drilled in 1994, using the cone penetrometer test (CPT) method, to collect stratigraphic sounding data only. HSA sample boring SB02 was drilled at the same location as CPT sounding SB02, but sample borings SB03, SB04, and SB05 were drilled at newly designated locations, based on the results of the near-surface soil sample analytical data and the safe accessibility of advancing the HSA borings without encountering the underground utilities at this SWMU. Tt collected these eighteen subsurface soil samples, including two collocated duplicate samples, from fine-grained intervals at depths from 10.5 to 39.5 feet bgs and screened them, using the enzyme immunoassay test kits, by USEPA Draft Method 4030 for the semiquantitative analysis of TPH in soil. All of the analytical results for these samples are included in Appendix C.

## 5 INVESTIGATION RESULTS

The site inspections of SWMU I18 revealed several pipes that terminated at this SWMU and that appeared to be associated with a fuel tank or a boiler associated with the boiler operations in the adjacent Building 104-2. The boiler in this building reportedly used diesel fuel. These inspections also revealed three underground utility vaults, which contained high voltage electrical lines and transformers labeled as containing PCBs. Therefore, the target analytes for SWMU I18 were designated to be TPH as diesel (TPH-d) and PCBs.

During its SGPR survey at SWMU I18, Norcal found no anomalies that could be interpreted as USTs for diesel storage or additional utility vaults with PCB transformers; therefore, no additional sources of TPH-d or PCBs were found, based on the SGPR survey.

Tt found no PCBs in any of the near-surface or subsurface soil samples collected during our 1994 and 1997 remedial investigations; therefore, PCBs do not appear to have been released at this SWMU, and no remediation of the soils at SWMU I18 is necessary with regard to PCBs.

TPH-d was found in ten of the 34 near-surface soil samples collected from the 16 hand auger locations, indicating a widespread area affected by releases of diesel (Table 5-1). These concentrations of TPH-d ranged from <0.2 mg/kg to 1,600 mg/kg. Three of these ten samples contained TPH-d concentrations greater than the TPH-d PCG of 100 mg/kg and greater than the NAC action level for TPH. These samples were collected from hand auger locations HA02 and HA06, in the area with the greatest soil contamination (Figure 2).

Based on the soil sample results from hand auger locations HA02 and HA06, the lateral extent of the TPH-affected soils was defined in the central area of SWMU I18. Soil borings SB04 and SB05 were drilled in this area to define the vertical extent of the contamination. Samples from soil boring SB04 contained no detectable concentrations of TPH at a depth of 20 feet, and samples from soil boring SB05 at a depth of 20 feet contained no detectable concentrations of TPH as gasoline or TPH-d; however, this latter sample contained moderate concentrations of TPH as motor oil and heavy oil (Table 5-1). Therefore, the lateral and vertical extents of the TPH-affected soil that are greater than the action level are in the vicinity of hand auger locations HA02 and HA06, to a depth greater than two feet and less than 20 feet. These extents appear to be adequately defined and no additional investigation of TPH is recommended at SWMU I18.

The area where the TPH-contaminated soil exceeded the action level is near the underground utility vaults and high voltage power lines south of Building 104-2. Excavating and removing these soils would likely be costly and could be hazardous because of these utilities; therefore, Tt does not recommend the excavation and soil removal alternative for this SWMU with regard to the concentrations of TPH in the near-surface soils.

The groundwater samples collected from the monitoring wells in the vicinity of SWMU I18 did not contain volatile organic compounds (VOCs) or semivolatile organic compounds (SVOCs) that are commonly associated with diesel, and the vertical extent of the diesel-affected soil extends to only 20 feet bgs, with groundwater at an estimated depth of greater than 200 feet bgs. Also, no PCBs were found in any of the groundwater samples collected from these wells, and no PCBs were found in any of the soil samples collected at this SWMU. The groundwater results for these two wells are included in Appendix C.

Although the monitoring wells referred to in this evaluation are not at the SWMU, there is insufficient evidence to justify additional groundwater investigations. Therefore, neither of these two potential chemicals of potential concern (COPCs) appears to have affected the groundwater

**Table 5-1**  
**Summary of TPH Results in Soil Samples**  
**SWMU I18 – Building 104-2 Hydrocarbon Spill**

Sample ID	Location ID	Sample Date	Depth	C8-C10 (Gasoline)	C11-C22 (Diesel)	C23-C30 (Motor oil)	C31-C40 (Heavy oil)
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<b>Hand-auger Samples</b>							
I18-HA01-1-S	HA01	7/26/1994	1	NA	<0.2	NA	NA
I18-HA02-1-S	HA02	7/26/1994	2	NA	1600	NA	NA
I18-HA02-2-S	HA02	7/26/1994	5	NA	1400	NA	NA
I18-HA03-1-S	HA03	7/26/1994	2	NA	1.3	NA	NA
I18-HA03-2-S	HA03	7/26/1994	5	NA	<0.2	NA	NA
I18-HA04-1-S	HA04	7/26/1994	2	NA	<0.2	NA	NA
I18-HA05-1-S	HA05	7/26/1994	2.5	NA	<0.2	NA	NA
I18-HA05-2-S	HA05	7/26/1994	5	NA	<0.2	NA	NA
I18-HA06-1-S	HA06	7/27/1994	2	NA	38	NA	NA
I18-HA06-2-S	HA06	7/27/1994	5	NA	470	NA	NA
I18-HA07-1-S	HA07	7/27/1994	2.5	NA	<1	NA	NA
I18-HA07-2-S	HA07	7/27/1994	5	NA	<0.2	NA	NA
I18-HA08-1-S	HA08	7/27/1994	2	NA	<1	NA	NA
I18-HA08-2-S	HA08	7/27/1994	5	NA	<0.2	NA	NA
I18-HA09-1-S	HA09	7/27/1994	2	NA	1.6	NA	NA
I18-HA10-1-S	HA10	7/27/1994	2.5	NA	4.4	NA	NA
I18-DP151	HA10	7/27/1994	2.5	NA	11.9	NA	NA
I18-HA10-2-S	HA10	7/27/1994	5	NA	3.5	NA	NA
I18-DP155	HA10	7/27/1994	5	NA	8.2	NA	NA
I18-HA11-1-S	HA11	7/28/1994	2	NA	<0.2	NA	NA
I18-HA11-2-S	HA11	7/28/1994	5	NA	<0.2	NA	NA
I18-HA12-1-S	HA12	7/28/1994	2	NA	<1	NA	NA
I18-HA13-1-S	HA13	7/28/1994	2	NA	<1	NA	NA
I18-HA13-2-S	HA13	7/28/1994	5	NA	<1	NA	NA
I18-HA14-1-S	HA14	7/28/1994	2	NA	<1	NA	NA
I18-HA14-2-S	HA14	7/28/1994	5	NA	<0.2	NA	NA
I18-HA15-1-S	HA15	7/28/1994	2	NA	<1	NA	NA
I18-HA15-2-S	HA15	7/28/1994	5	NA	<1	NA	NA
I18-HA16-1-S	HA16	7/28/1994	2	NA	<1	NA	NA
I18-HA16-2-S	HA16	7/28/1994	5	NA	<0.2	NA	NA
<b>Soil Boring Samples</b>							
I18-SB02-5-S	SB02	2/19/1997	39.5	<0.16	<0.88	<0.4	<0.3
I18-SB03-4-S	SB03	2/20/1997	39	<0.16	<0.85	<0.39	<0.29
I18-SB04-3-S	SB04	2/19/1997	20.5	<0.17	<0.91	<0.42	<0.31
I18-SB05-2-S	SB05	2/19/1997	20.5	<0.16	<0.84	21	64
Analyses							
Detections				4	34	4	4
Minimum Concentration				0	10	1	1
Maximum Concentration				0	1.3	21	64
HWAD - PCG				100	100	100	100
HWAD - PCG Hits				0	3	0	0

in the vicinity of this SWMU, and no additional groundwater investigations are recommended. This premise is further justified by the evaluation of potential TPH migration to the groundwater, in Section 6 of this document.

## 6 EVALUATION OF TPH MIGRATION TO GROUNDWATER

Tt conducted no risk evaluation of potential surface exposure for SWMU I18 because of insufficient data at less than 1.5 feet; however, only two contaminants, TPH-d and PCBs, require evaluation for this SWMU. Because the PCB transformers are contained in the underground vaults, it is not likely that this potential contaminant would be found at the surface. Also, Tt found no concentration of PCBs in any of the near-surface or subsurface soils; therefore, PCBs appear to have been sufficiently investigated and can be eliminated as a COPC at this SWMU.

The subsurface soils at SWMU I18 are known to have concentrations of TPH greater than the PCG. The two most likely pathways of TPH to potential receptors at this SWMU are through surface exposure and migration to the groundwater for uptake in downgradient drinking water. Because no surface soil contamination was observed, the most likely exposure pathway is through the groundwater. There are no active production wells downgradient of SWMU I18 that could yield potentially contaminated groundwater; however, the affected soils have the potential to degrade the groundwater. Below is an evaluation of this potential.

### 6.1 Precipitation and Runoff

One of the assumptions for evaluating TPH migration to groundwater is that there is insufficient groundwater percolation through the vadose zone to transport petroleum hydrocarbons in an aqueous phase. Occasional discharges of boiler blow-down water from Building 104-2 represent an insignificant source of recharge; therefore, precipitation and runoff are the only likely sources of water at SWMU I18. Although there is a discontinuous earthen berm around the perimeters of the SWMU, it is probably not sufficient to prevent runoff from entering the site under high runoff conditions. Occasional large runoff events would provide a temporary source of recharge that could mobilize contaminants, but there is no significant depression in the ground surface to retain large quantities of runoff.

The annual precipitation at Thorne, near the northern boundary of HWAD and at an elevation of 4,200 feet, averaged about 3.3 inches between 1884 and 1949. The average annual precipitation at Hawthorne-Babbitt, also at an elevation of 4,200 feet, was about 4.5 inches between 1937 and 1965. Average monthly precipitation varied from 0.1 inch to 0.5 inch at Thorne and from 0.2 inch to 0.7 inch at Hawthorne-Babbitt (Everett and Rush 1967). Maximum rainfall in the area occurs in late spring and fall. July and August are the minimum rainfall months. The maximum observed two-year, 24-hour rainfall was reported to be just over two inches.

The potential evapotranspiration rate, about 48 inches per year, far exceeds precipitation. Average temperatures range from 34 degrees Fahrenheit ( $^{\circ}$ F) in January to 75 $^{\circ}$ F in July (USAEHA 1988). Most precipitation that falls on the Walker Valley floor quickly evaporates.

The small quantity of rainfall that infiltrates below the ground surface is absorbed in the shallow soils.

## 6.2 Summary of Risk

The only COPC in the near-surface soils at SWMU I18 is TPH, primarily as diesel, with lesser concentrations of motor oil and heavy oil. The highest detected concentration of TPH is 1,600 mg/kg in the diesel range, in one sample collected from a depth of two feet bgs. This contamination does not extend laterally over an area greater than a 50-foot radius, based on many soil samples collected from several nearby borings. The vertical extent of the contamination is generally less than 20 feet bgs.

The principal pathways for potential exposure to the TPH contamination are through direct contact with the soil or through exposure to contaminated groundwater if the contaminants were to reach the water table. The surface soils were not stained with petroleum contamination indicating no exposure pathway through direct contact. The concentrations of TPH in the near-surface soils are generally confined to the 20-foot depth. The potential for these residual concentrations of TPH to migrate to the water table is discussed below.

There are three principal processes that affect petroleum hydrocarbon contaminants in the vadose zone in the absence of a source of recharge:

- The force of gravity pulls free-phase liquid vertically downward. Infiltrating precipitation can accelerate this downward migration; however, HWAD is in an arid climate where annual precipitation rates are low; therefore, leaching by water percolating through the vadose zone is not expected.
- Soil particles adsorbing and absorbing the petroleum hydrocarbon compounds reduces the rate of downward migration.
- Over time, naturally occurring bacteria will biodegrade the fuel-contaminated soils, which will reduce the mass of fuel available for downward migration.

If the quantity of diesel oil remaining in the soil is not sufficient to cause diesel to migrate downward under the influence of gravity to the depth of the water table, then the residual diesel concentrations do not represent a significant risk to groundwater if the diesel is left in place.

A method of estimating the volume of fuel necessary to overcome the effects of adsorption and to reach the water table is presented in the US EPA's Underground Technology Update, Volume 4, Number 4, August 1994: "Soil porosity and bulk hydrocarbon physical characteristics will determine the soil volume ( $V_s$ ) necessary to immobilize a release (through adsorption)." This soil volume, in cubic yards, can be estimated by the following formula:

$$V_s = (0.2) \times (V_{hc}) / (P) \times (RS)$$

where  $V_{hc}$  is the volume in barrels of discharged hydrocarbons (one barrel is equal to 44 gallons);

P is the effective soil porosity; and

RS is the residual saturation capacity.

The RS of soils is generally about 33 percent of the soil's water-holding capacity. As stated in the US EPA document, RS values for various hydrocarbon compounds are as follows:

Light oil and gasoline = 0.1;

Used oil and fuel oil = 0.15; and

Lubrication oil and heavy oil = 0.2.

For this site, where diesel was the greatest concentration, the RS value of 0.15 will be used.

The greater the actual residual porosity is, relative to the theoretical residual saturation capacity of the soil, the more confidence there will be that no migration will occur. Therefore, comparing the residual capacity of the soil to the residual saturation capacity should indicate whether additional migration could occur. If so, then the next step would be to consider the volume of an uncontaminated porous medium that is available to absorb or adsorb the excess diesel oil. This sort of analysis has been performed for sites at which underground tank leaks have released relatively large amounts of oil and where the oil could be above the saturation capacity in some portions of the contaminated region. However, at SWMU I18 it is unlikely that any soils contain TPH-d concentrations above the RS of the soil.

To demonstrate this, the equation above can be rewritten to solve for the concentration of diesel at which no further migration would occur because this is any concentration that results in a residual porosity (porosity unfilled by diesel) greater than the residual saturation capacity of the soil.

First, rearrange the terms:

$$(Vhc)/(Vs) = 5 \times (P) \times (RS)$$

The term  $(Vhc)/(Vs)$  is the volume of diesel per volume of soil that can be absorbed/adsorbed without exceeding the saturation capacity of the soil. The equation indicates that one cubic yard of soil with a porosity of 25 percent can absorb/adsorb approximately 0.19 barrel of diesel. A barrel of diesel weighs about 144 kilograms (kg). Therefore, a cubic yard of soil is able to absorb/adsorb about 27 kg ( $27 \times 10^6$  milligrams [mg]) of diesel. Assuming that the dry bulk density of the soil is about 500 kg per cubic meter, each cubic yard of soil weighs about 400 kg. This means that 400 kg of soil can absorb about  $27 \times 10^6$  mg of diesel; in other words, the diesel will not be mobile until the concentration in the soil exceeds about 69,000 mg/kg, or about seven percent by weight. Based on this result, even if it were assumed that soils beneath the site were uniformly contaminated with concentrations of 1,600 mg/kg, which is the highest concentration

of diesel detected in the soils, the diesel would not be expected to migrate vertically under the force of gravity. A concentration of 1,600 mg/kg represents only about two percent of the absorption capacity of the soil. Considering that the average concentration in soils beneath the site is much lower than 1,600 mg/kg and that the depth to groundwater beneath the site is about 200 feet, the diesel concentrations in the near-surface soils at SWMU I18 are not a significant threat to groundwater quality.

## **7 REMEDIATION**

Because there was no surface exposure that posed an immediate threat to on-workers, there were no interim remedial actions to mitigate the site. In addition, the underground utilities at this SWMU prohibit cost-effective and safe soil removal. Based on the risk evaluation of potential migration of the TPH contamination to the groundwater, the concentration of TPH can be left in place without affecting human health or the environment; therefore, no future remedial actions are recommended.

## **8 REMEDIATION RESULTS**

No interim remedial actions were conducted, and no future remediation is recommended.

## **9 PUBLIC INVOLVEMENT**

It is US Department of Defense and Army policy to involve the local community throughout the investigation process at an installation. To initiate this involvement, HWAD has established and maintains a repository at the local public library, which includes final copies of all past studies and other documents regarding environmental issues at HWAD. As future environmental documents are made available to HWAD, the repository will be updated.

HWAD has solicited community participation to establish a restoration advisory board (RAB). To date there has been insufficient response, and HWAD has not formed a RAB. HWAD has held open houses to inform the public of ongoing environmental issues and will continue to solicit community involvement. HWAD will establish a RAB should there be sufficient community interest.

## **10 CONCLUSIONS**

In accordance with the NAC 445A.227, no action is required at SWMU I18, based on the following considerations and the information reported in the remedial investigation report:

- The depth to the groundwater is approximately 200 feet below the ground surface and is deeper than the extent of the known subsurface contamination;
- There are no irrigation or drinking water wells in the Walker Valley near this SWMU;
- The low permeability soils at this SWMU deter migration of the TPH because they are fine-grained to very fine-grained sand and silts, with few fractures, if any;

- The annual precipitation at this SWMU that would cause the TPH to migrate through the soil to the groundwater is very low;
- The only chemical of concern at this SWMU is TPH, which generally has a low toxicity and slow migration rate, with no detectable VOC constituents;
- The extent of the known TPH contamination in soil is confined to small areas within the SWMU boundary and to moderate depths that do not appear to be affecting the groundwater;
- The present and potential future use of the land is military/industrial, with minimal exposure to the TPH concentrations in the soil;
- The most likely routes of migration of the TPH in soil at this SWMU are through surface exposure and very slow to no migration through the vadose zone to the groundwater;
- The contaminated soil at this SWMU is very near a structure, which is an impediment to removing the soil;
- For the concentrations of TPH found at this SWMU, there is no potential for a hazard related fire, vapor, or an explosion; and,
- There is no other information reported at this SWMU that would require a corrective action for the TPH concentrations found in the soil.

Based on the investigation data, SWMU I18 appears to be adequately characterized with regard to the COPC designated for this site. The one COPC, TPH, primarily as diesel, is known to occur in the soils at SWMU I18 at concentrations above the HWAD basewide PCG and NCR action level of 100 mg/kg. However, based on the summary of risk, there is no potential exposure pathway for this contamination to affect human health or the environment, provided that subsurface soils are not exposed through excavation. Unless future information is forthcoming that would necessitate the reevaluation of SWMU I18, it is recommended that this SWMU be closed with no further investigation, and with the no further action remedy be selected for this SWMU.

The selected remedy protects human health and the environment. SWMU I18 is to be closed, with the restrictions that, should repair work to utility lines be necessary, personnel will be informed of the presence of TPH so that the appropriate PPE requirements can be implemented for the worker's safety. All TPH-contaminated soil from this site that is associated with utility repairs and replacement will be treated at the permitted TPH landfarm. Clean soil will be used for backfilling any excavations at SWMU I18. It has been shown that a complete exposure pathway to human health and the environment does not likely exist, and there is no likely potential for such an exposure pathway to be completed in the future.

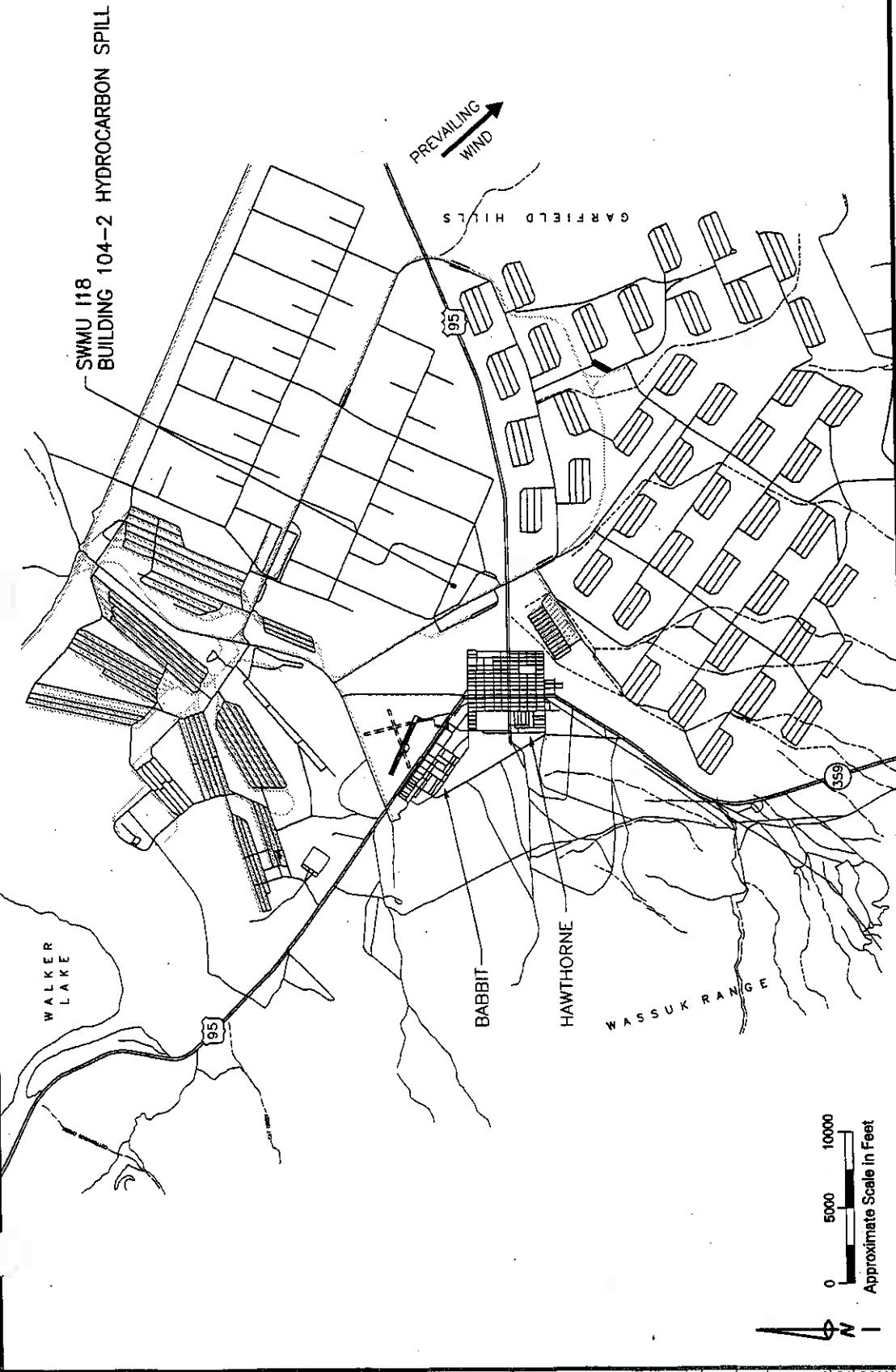
## **11 REFERENCES**

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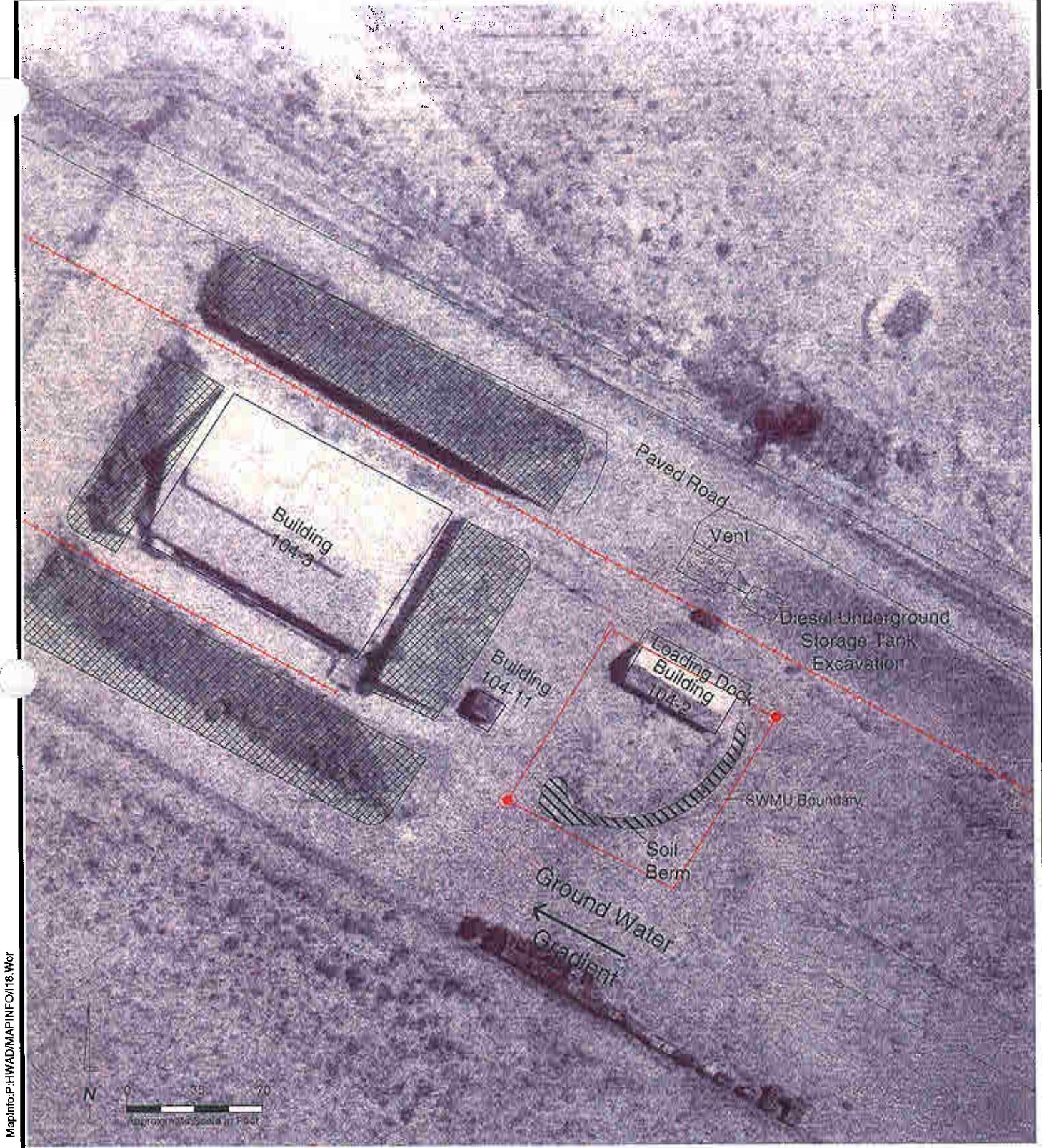
## **FIGURES**

**Site Location Map**  
**SWMU 118**  
**Building 104-2 Hydrocarbon Spill**  
Hawthorne Army Depot  
Hawthorne, Nevada

**Figure 1**



SOURCE: TETRA TECH FINAL DATA PACKAGE, 1996 (REV. 1997)  
C:\0082\32\Swmu-map.dwg - 7/7/98 - BC



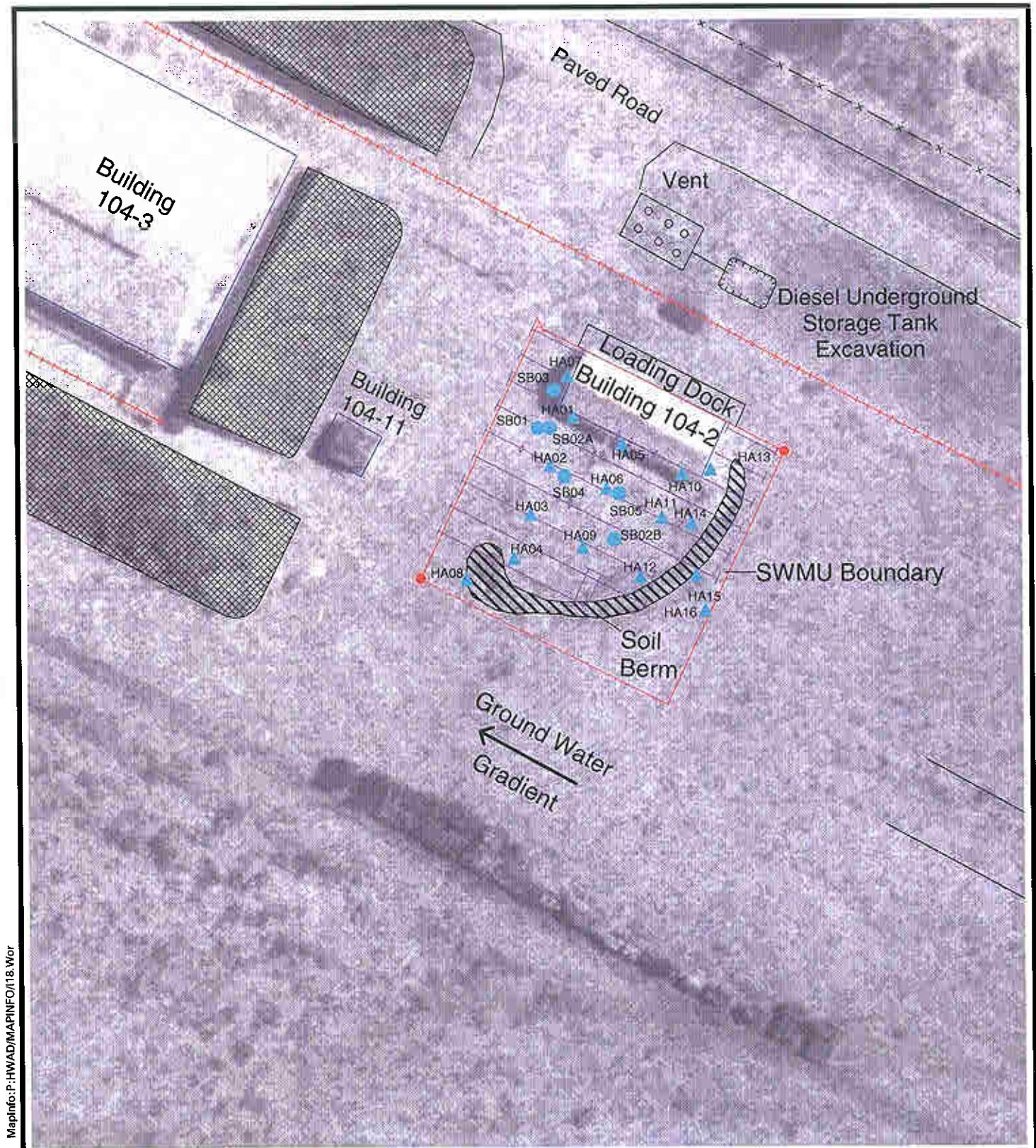
**Legend:**

- SWMU Monument
- Boundary Corner Pin
- Explosion Barrier
- Fence
- Railroad

**Site Map  
SWMU I18**

**Building 104-2 Hydrocarbon Spill**  
Hawthorne Army Depot  
Hawthorne, Nevada

**Figure 1-2**



**Legend:**

- GPR Traverse
- Boundary Corner Pin
- Hand Auger Location
- Soil Boring Location
- GPR Anomaly
- Explosion Barrier Fence
- SWMU Monument

0 25 50  
Approximate Scale in Feet

**Investigation Activity Map  
SWMU I18**  
**Building 104-2 Hydrocarbon Spill**  
Hawthorne Army Depot  
Hawthorne, Nevada  
**Figure 2**



**Legend:**



N  
0 275 550  
Approximate Scale in Feet

## Vicinity Well Map

Hawthorne Army Depot  
Hawthorne, Nevada

**APPENDIX A**

**PROPOSED CLOSURE GOALS**

**Proposed Closure Goals**  
**Hawthorne Army Depot**  
**Hawthorne, Nevada**

Constituent of Concern	Chemical Classification	Carcinogenic (C) or Non-carcinogenic (NC)	HWAD Proposed Closure Goals for Soil (mg/kg)	HWAD Proposed Closure Goal Source
Nitrate	Anion	NC	128,000	Calculated Subpart S <sup>a</sup>
2-Amino-dinitrotoluene	Explosive	NC	-	NA <sup>b</sup>
4-Amino-dinitrotoluene	Explosive	NC	-	NA
1,3-Dinitrobenzene	Explosive	NC	8	Calculated Subpart S
2,4-Dinitrotoluene	Explosive	NC	160	Calculated Subpart S
2,6-Dinitrotoluene	Explosive	NC	80	Calculated Subpart S
HMX	Explosive	NC	4,000	Calculated Subpart S
Nitrobenzene	Explosive	NC	40	Calculated Subpart S
Nitrotoluene (2-, 3-, 4-)	Explosive	NC	800	Calculated Subpart S
RDX	Explosive	NC	64	Calculated Subpart S
Tetryl	Explosive	NC	800	Calculated Subpart S
1,3,5-Trinitrobenzene	Explosive	NC	4	Calculated Subpart S
2,4,6-Trinitrotoluene	Explosive	C	233	Calculated Subpart S
Aluminum	Metal	NC	80,000	Calculated Subpart S
Arsenic (cancer endpoint)	Metal	C & NC	30	Background <sup>c</sup>
Barium and compounds	Metal	NC	5,600	Calculated Subpart S
Beryllium and compounds	Metal	C	1	Background
Cadmium and compounds	Metal	NC	40	Calculated Subpart S
Chromium III and compounds	Metal	NC	80,000	Calculated Subpart S
Lead	Metal	NC	1000	PRG <sup>d</sup>
Mercury and compounds (inorganic)	Metal	NC	24	Calculated Subpart S
Selenium	Metal	NC	400	Calculated Subpart S
Silver and compounds	Metal	NC	400	Calculated Subpart S
Acenaphthene	PAH	NC	4,800	Calculated Subpart S
Benzo[a]anthracene	PAH	C	0.96	Calculated Subpart S
Benzo[a]pyrene	PAH	C	0.10	Detection Limit <sup>e</sup>
Benzo[b]fluoranthene	PAH	C	0.96	Calculated Subpart S
Benzo[k]fluoranthene	PAH	C	10	Calculated Subpart S
Chrysene	PAH	C	96	Calculated Subpart S
Dibenz[ah]anthracene	PAH	C	0.96	Calculated Subpart S
Fluoranthene	PAH	NC	3,200	Calculated Subpart S
Fluorene	PAH	NC	3,200	Calculated Subpart S
Indeno[1,2,3-cd]pyrene	PAH	C	-	NA
Naphthalene	PAH	NC	3,200	Calculated Subpart S
Pyrene	PAH	NC	2,400	Calculated Subpart S
Total Petroleum Hydrocarbons as Diesel (TPH-d)	PAH	C	100	NDEP Level Clean-up <sup>f</sup>
Polychlorinated biphenyls (PCBs)	PCBs	C	25	TSCA <sup>g</sup>
Bis(2-ethylhexyl)phthalate (DEHP)	SVOC	C	1,600	Calculated Subpart S
Bromoform (tribromomethane)	SVOC	C	89	Calculated Subpart S
Butyl benzyl phthalate	SVOC	NC	16,000	Calculated Subpart S
Dibromochloromethane	SVOC	C	83	Calculated Subpart S
Dibutyl-phthalate	SVOC	NC	8,000	Calculated Subpart S
Diethyl phthalate	SVOC	NC	64,000	Calculated Subpart S
Phenanthrene	SVOC	NC	-	NA
Phenol	SVOC	NC	48,000	Calculated Subpart S

**Proposed Closure Goals**  
**Hawthorne Army Depot**  
**Hawthorne, Nevada**

Constituent of Concern	Chemical Classification	Carcinogenic (C) or Non-carcinogenic (NC)	HWAD Proposed Closure Goals for Soil (mg/kg)	HWAD Proposed Closure Goal Source
Acetone	VOC	NC	800	Calculated Subpart S
Anthracene	VOC	NC	24,000	Calculated Subpart S
Benzene	VOC	C	24	Calculated Subpart S
Bis(2-chloroisopropyl)ether	VOC	C	3,200	Calculated Subpart S
Bromomethane	VOC	NC	112	Calculated Subpart S
Carbon tetrachloride	VOC	C	5	Calculated Subpart S
Chlorobenzene	VOC	NC	1,600	Calculated Subpart S
Chloroform	VOC	C	115	Calculated Subpart S
Chloromethane	VOC	C	538	Calculated Subpart S
Dibromomethane	VOC	C	0.008	Calculated Subpart S
1,2-Dichlorobenzene	VOC	NC	7,200	Calculated Subpart S
1,4-Dichlorobenzene	VOC	C	18,300	Calculated Subpart S
Dichlorodifluoromethane	VOC	C	16,000	Calculated Subpart S
Ethylbenzene	VOC	NC	8,000	Calculated Subpart S
Methylene bromide	VOC	NC	800	Calculated Subpart S
Methylene chloride	VOC	C	4,800	Calculated Subpart S
2-Methylnaphthalene	VOC	-	-	NA
1,1,2,2-Tetrachloroethane	VOC	C	35	Calculated Subpart S
Tetrachloroethylene (PCE)	VOC	C & NC	800	Calculated Subpart S
Toluene	VOC	NC	16,000	Calculated Subpart S
1,1,1-Trichloroethane	VOC	NC	7,200	Calculated Subpart S
Trichloroethylene (TCE)	VOC	C & NC	480	Calculated Subpart S
Trichlorofluoromethane	VOC	NC	24,000	Calculated Subpart S
1,2,3-Trichloropropane	VOC	C	480	Calculated Subpart S
Vinyl chloride	VOC	C	0.37	Calculated Subpart S
Xylene Total (m-, o-, p-)	VOC	NC	160,000	Calculated Subpart S
2,3,7,8-TCDD	Dioxin	C	0.000005	Calculated Subpart S

<sup>a</sup> RCRA 55 FR 30870

<sup>b</sup> Not available

<sup>c</sup> Highest background concentration detected in 50 background soil samples

<sup>d</sup> Smucker, Stanford J. USEPA Region IX, Preliminary Remedial Goals, Second Half, Sep. 1995

<sup>e</sup> Method detection limit for Volatile Organic Compounds by EPA Method 8260 or

Semi-Volatile Organic Compounds analyzed by EPA Method 8270

<sup>f</sup>Nevada Division of Environmental Protection

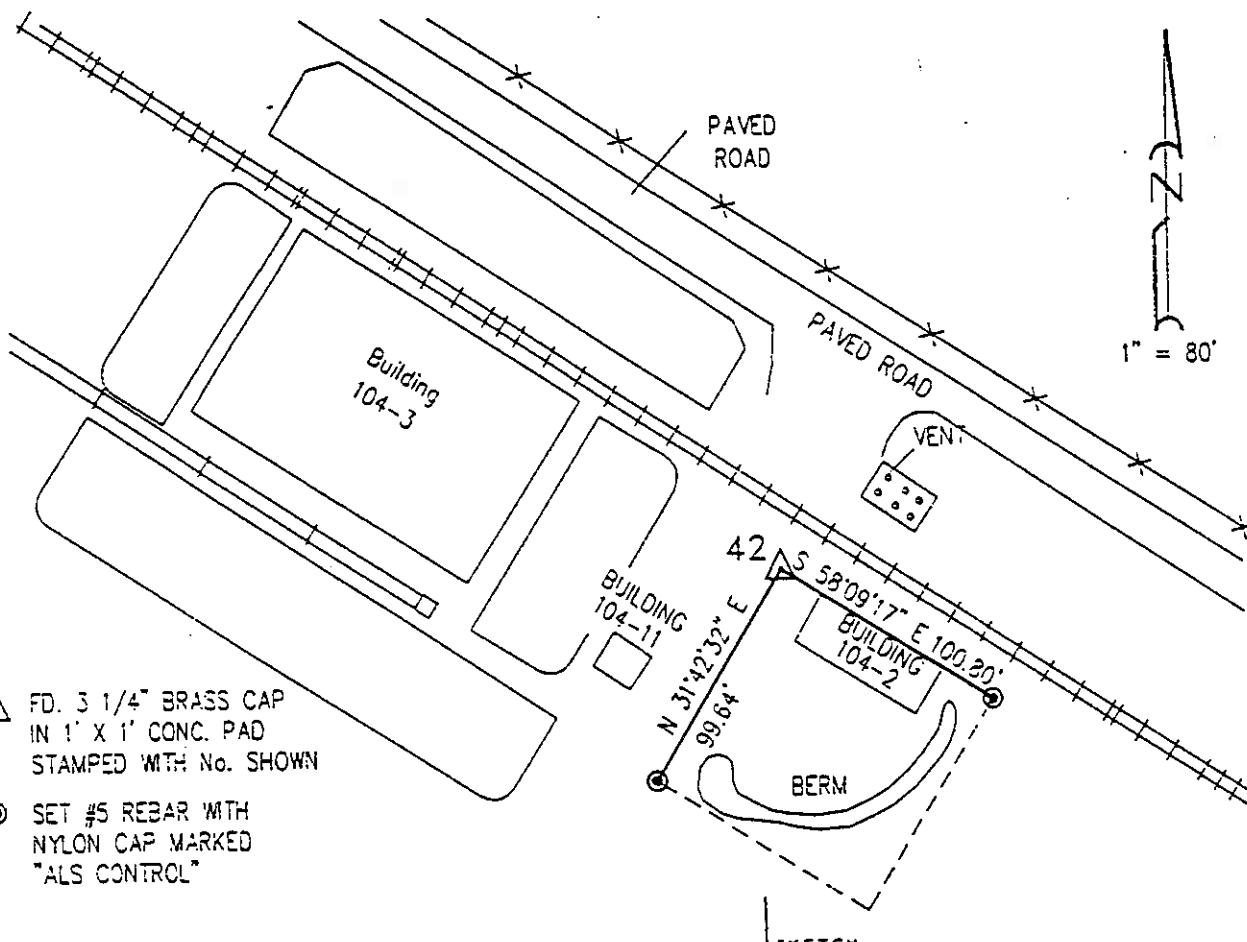
<sup>g</sup>Cleanup level for PCB spills in accordance with Toxic Substance and Control Act Spill Policy Guidelines 40 CFR 761

**APPENDIX B**

**SURVEY DATA**

COUNTRY <b>USA</b>	TYPE OF MARK <b>BRASS CAP</b>	STATION <b>42</b>	ELEVATION <b>4301.30</b> (FT) (M)
LOCALITY <b>HAWTHORNE NEV.</b>	STAMPING ON MARK <b>42 I-18</b>	AGENCY (CAST IN MARKS) <b>COE HWAAP</b>	DATUM <b>NAD '27</b>
LATITUDE <b>38°31'53.39890" N</b>	LONGITUDE <b>118°35'55.41179" W</b>	DATUM <b>NGVD '29</b>	ESTABLISHED BY (AGENCY) <b>A.L.S.</b>
(NORTHING)(EASTING) <b>1376588.43</b> (M)	(EASTING)(NORTHING) <b>495597.07</b> (M)	GRID AND ZONE <b>NEVADA SP WEST</b>	DATE <b>1997</b>
(NORTHING)(EASTING) (M)	(EASTING)(NORTHING) (M)	GRID AND ZONE	ORDER <b>2ND</b>
TO OBTAIN GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)
			GRID DISTANCE (METERS) (FEET)

MONUMENT 42 - SWMU I-18  
 FROM HIGHWAY 95 TAKE MINE ROAD NORTHWEST 600 FEET TO A ROAD, THEN  
 NORTHEAST 1800 FEET (PAST BUILDING 104-7) TO A ROAD, THEN  
 NORTHWEST 1200 FEET TO BUILDING 104-2. SEE MAP BELOW. MONUMENT  
 IS A 3 1/4" BRASS CAP SET IN A 1' X 1' CONCRETE PAD AND IS MARKED  
 WITH A 4" X 4" X 6' WOOD POST, PAINTED WHITE.



- ▲ FD. 3 1/4" BRASS CAP  
IN 1' X 1' CONC. PAD  
STAMPED WITH NO. SHOWN
- SET #5 REBAR WITH  
NYLON CAP MARKED  
"ALS CONTROL"

## NOTES ON COMPLETION OF FORM

1. GENERAL: This form may be used in the field or, as an office form to record and publish positions, descriptions, and related data.

2. FIELD USE OF FORM: The information required should be obtained and recorded *AT THE STATION SITE*. The field engineer should fill in only the information available and applicable to field use. In general, the geographic and grid positions, azimuths, distances, and elevations should not be filled in at field level except when the information is required for an immediate specific purpose.

a. ORIGINAL DESCRIPTION OF NEW STATION: The type of mark used for the station, reference marks, and azimuth marks, and a description of each must be given in the text of the description. If a disk is used, the identity of the agency whose name is cast in the disk and all of the letters and numbers stamped on the mark which identify the organization establishing or setting the mark should be given. In many areas the use of disks is not desirable because of their loss, due to vandalism or superstition. Less conspicuous marks should be used under these conditions. This requires exact statements of the character of the marks. Information for all marks as to the elevation above or below ground and approximate elevation above or below nearby prominent features is important. At least three measurements within .01 foot should be made from the station to any permanent marks, features, or structures that would permit re-locating the spot where an instrument was centered.

Good judgment should be exercised as to how far these measurements should be made. It is recommended that they be made to items which are not in the immediate vicinity of the station. Angles should also be turned to these items, particularly where no azimuth mark or marks have been established.

b. VIEW: Provide information on height of tower or stand used in occupying or establishing the station and information on view from a normal tripod, i.e., a 50-foot tower was used at the station; view from a tripod height is clear to the south and east but is obstructed by rise in ground (by 50 foot trees) to the north and west.

c. PHOTOGRAPHIC IDENTIFICATION: Provide when possible, two measurements from the station to natural or cultural features which might be visible on aerial photography and a description of the terrain. If photographs are available identify the station thereon and note estimated accuracy of the identification.

d. NOTES ON RECOVERED STATIONS: A diligent search should be made for *ALL* previously established stations in the vicinity and no station should be reported as destroyed unless conclusive evidence of destruction is present. A statement of the diligence of the search and reason for the non-recovery of a previously established mark is required. If the spot where a station mark was located can be reproduced by measurement given in the description, the station is not destroyed. The reproduced spot should be tied in by azimuth and distance and the estimated accuracy of the reproduced location given. If a new mark is set in the exact location of a previously established but destroyed mark, the designation of the station should be identical with the original with only a new date added to its designation. If a new disk is set in the approximate location of the old station, the name should be preserved but the number "2" and a new date should be added.

(DESCRIBED) (RECOVERED) BY	
PROJECT	
DATE	FIELD BOOK

SWMU I18 Survey Data  
Hawthorne Army Depot  
Hawthorne, Nevada

SWMU	Point ID	Northing (feet)	Easting (feet)	Elevation
I18	HWAAP-42-1996	1376588.43	495597.07	4301.30
I18	Pin 1	1376535.24	495682.70	NE
I18	Pin 2	1376503.66	495544.70	NE
I18	HA01	1376554.78	495606.63	NE
I18	HA02	1376538.41	495596.54	NE
I18	HA03	1376521.97	495587.56	NE
I18	HA04	1376507.18	495579.79	NE
I18	HA05	1376543.44	495623.66	NE
I18	HA06	1376528.37	495616.26	NE
I18	HA07	1376569.37	495606.22	NE
I18	HA08	1376501.61	495561.56	NE
I18	HA09	1376508.67	495605.47	NE
I18	HA10	1376530.88	495644.35	NE
I18	HA11	1376516.10	495635.24	NE
I18	HA12	1376496.03	495625.20	NE
I18	HA13	1376531.29	495654.89	NE
I18	HA14	1376513.13	495646.04	NE
I18	HA15	1376494.50	495645.74	NE
I18	HA16	1376481.98	495647.81	NE
I18	SB01	1376552.32	495593.39	NE
I18	SB02A	1376552.05	495597.86	NE
I18	SB02B	1376510.42	495617.21	NE
I18	SB03	1376565.16	495600.63	NE
I18	SB04	1376534.47	495601.41	NE
I18	SB05	1376526.34	495620.60	NE

Notes:

NE = Not established.

Coordinate data based on electronic map file using the NAD 1927 datum.

Elevation data based on surveyors map using NGVD 1929 datum.

**APPENDIX C**

**ANALYTICAL DATA FROM INVESTIGATION**

## Description of Qualifiers

- J Data are considered quantitatively estimated.
- J+ Data are considered quantitatively estimated with a possible high bias.
- J- Data are considered quantitatively estimated with a possible low bias.
- N Data are considered quantitatively presumptive due to tentative analyte identification.
- NJ Data are considered quantitatively presumptive due to tentative analyte identification; the associated value is considered quantitatively estimated.
- R Data are rejected and considered unusable for all purposes.
- UJ Analyte is considered not present above the level of the associated value; the associated value is considered quantitatively estimated.
- UJ- Analyte is considered not present above the level of the associated value; the associated value is considered quantitatively estimated with a possible low bias.

**Maximum Metal Concentrations Considered Representative  
of Background Soil Samples from  
Hawthorne Army Depot, Hawthorne, Nevada**

	Al (mg/kg)	As (mg/kg)	Ba (mg/kg)	Be (mg/kg)	Cd (mg/kg)	Cr (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Se (mg/kg)	Ag mg/kg
Maximum Background Metal Concentration (Mean plus 2 Std. Dev.) <sup>(1)</sup>	12,365	18.1	447	0.58	1.08	13.76	16.7	0.108	NA <sup>(2)</sup>	NA <sup>(2)</sup>

**Note:** 1. For purposes of calculating mean and standard deviations, non-detect values were set to 50 percent of the detection limit, e.g., a value of 0.25 would be used during statistical calculations to represent a non-detect value of <0.50.

2. NA = insufficient detects to calculate meaningful statistics

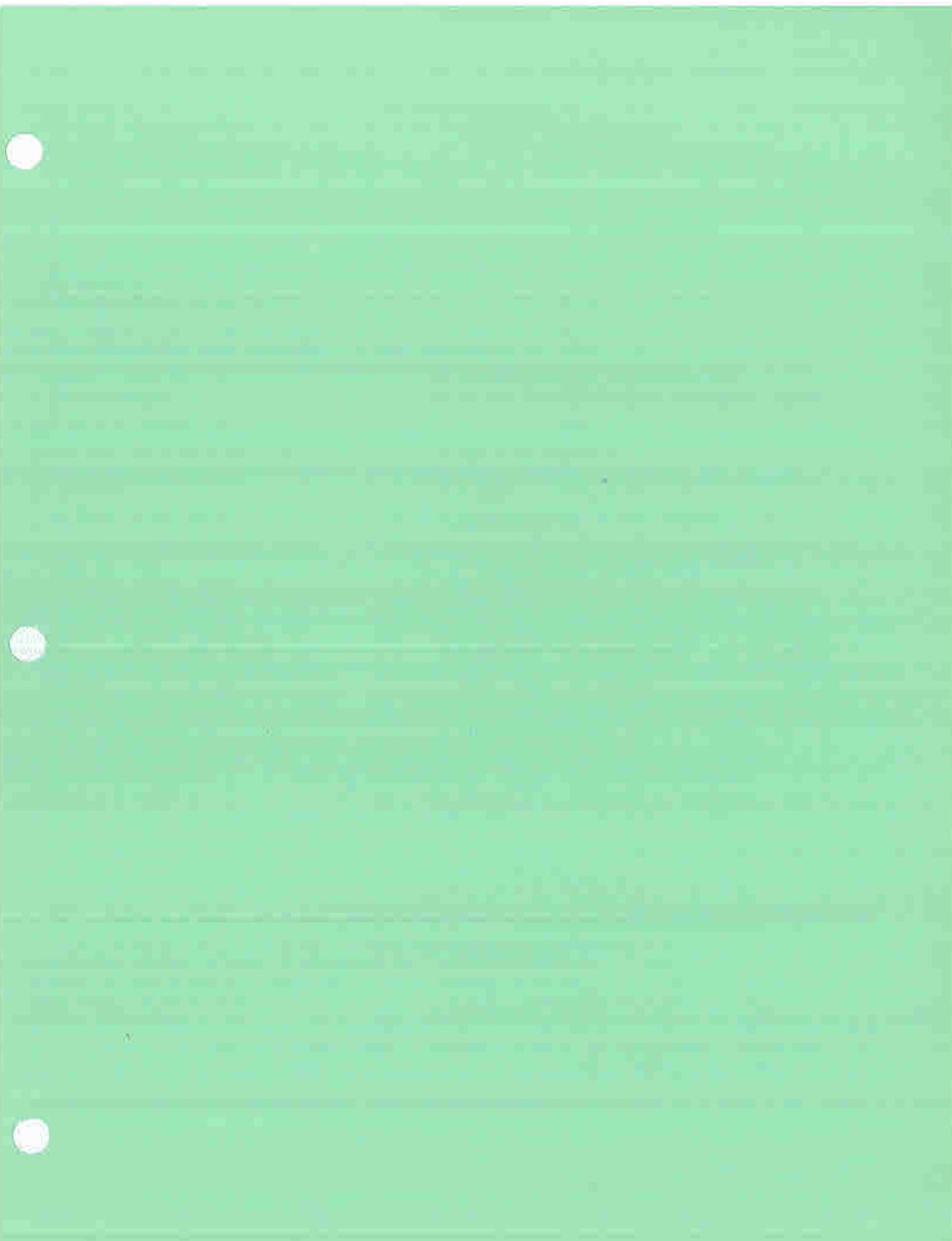
**Source:** Technical Memorandum Background Soil Sampling (T: 1997d)

## Description of Duplicates

Soil samples I18-DP150, I18-DP151, and I18-DP152 are collocated duplicate samples of I18-HA10-1-S.  
Soil samples I18-DP154, I18-DP155, and I18-DP156 are collocated duplicate samples of I18-HA10-2-S.

Soil sample I18-SB02-2-S is a collocated duplicate sample of I18-SB02-1-S.

Soil sample I18-SB04-4-S is a collocated duplicate sample of I18-SB04-3-S.



**Moisture**  
**Method ASTM D 2216 (APCL)**

Sample ID	Location ID	Sample Date	Depth	Lab	Moisture, percent in soil Percent
I18-SB02-1-S	SB02	2/19/1997	10.5	APCL	32.6
I18-SB02-5-S	SB02	2/19/1997	39.5	APCL	7.6
I18-SB03-1-S	SB03	2/20/1997	10	APCL	18
I18-SB03-4-S	SB03	2/20/1997	39	APCL	4.4
I18-SB04-1-S	SB04	2/19/1997	11	APCL	31
I18-SB04-3-S	SB04	2/19/1997	20.5	APCL	11
I18-SB05-1-S	SB05	2/19/1997	10.5	APCL	30.2
I18-SB05-2-S	SB05	2/19/1997	20.5	APCL	3.5
Analyses					
Detections					
Minimum Concentration					
Maximum Concentration					
HWAD_-_PCG					
HWAD_-_PCG Hits					

Moisture  
Method D 2216 (BCA)

Sample ID	Location ID	Sample Date	Depth	Lab	Percent	Moisture, percent in soil
I18-DP152	SB02	2/19/1997	10.5	BCA	NA	
I18-DP156	SB02	2/19/1997	39.5	BCA	NA	
Analyses					0	
Detections					0	
Minimum Concentration					0	
Maximum Concentration					0	
HWAD_-_PCG					NE	
HWAD_-_PCG Hits					NE	

**PCB Test Kit**  
**Method 4020 (T<sub>t</sub> Field)**

Sample ID	Location ID	Sample Date	Depth	Lab	PCB mg/kg
I18-DP150	HA10	7/27/1994	2.5	T <sub>t</sub> Field	X<1
I18-DP154	HA10	7/27/1994	5	T <sub>t</sub> Field	X<1
I18-HA01-1-S	HA01	7/26/1994	1	T <sub>t</sub> Field	X<1
I18-HA02-1-S	HA02	7/26/1994	2	T <sub>t</sub> Field	X<1
I18-HA02-2-S	HA02	7/26/1994	5	T <sub>t</sub> Field	X<1
I18-HA03-1-S	HA03	7/26/1994	2	T <sub>t</sub> Field	X<1
I18-HA03-2-S	HA03	7/26/1994	5	T <sub>t</sub> Field	X<1
I18-HA04-1-S	HA04	7/26/1994	2	T <sub>t</sub> Field	X<1
I18-HA05-1-S	HA05	7/26/1994	2.5	T <sub>t</sub> Field	X<1
I18-HA05-2-S	HA05	7/26/1994	5	T <sub>t</sub> Field	X<1
I18-HA06-1-S	HA06	7/27/1994	2	T <sub>t</sub> Field	X<1
I18-HA06-2-S	HA06	7/27/1994	5	T <sub>t</sub> Field	X<1
I18-HA07-1-S	HA07	7/27/1994	2.5	T <sub>t</sub> Field	X<1
I18-HA07-2-S	HA07	7/27/1994	5	T <sub>t</sub> Field	X<1
I18-HA08-1-S	HA08	7/27/1994	2	T <sub>t</sub> Field	X<1
I18-HA08-2-S	HA08	7/27/1994	5	T <sub>t</sub> Field	X<1
I18-HA09-1-S	HA09	7/27/1994	2	T <sub>t</sub> Field	X<1
I18-HA10-1-S	HA10	7/27/1994	2.5	T <sub>t</sub> Field	X<1
I18-HA10-2-S	HA10	7/27/1994	5	T <sub>t</sub> Field	X<1
I18-HA14-2-S	HA14	7/28/1994	5	T <sub>t</sub> Field	X<1
I18-HA15-1-S	HA15	7/28/1994	2	T <sub>t</sub> Field	X<1
I18-HA16-2-S	HA16	7/28/1994	5	T <sub>t</sub> Field	X<1
					22
Analyses					22
Detections					0
Minimum Concentration					0
Maximum Concentration					0
					NE
HWAD_-_PCG					NE
HWAD_-_PCG Hits					NE

**TPH Test Kit**  
**Method 4030 (Tt Field)**

Sample ID	Location ID	Sample Date	Depth	Lab	TPH-d mg/kg	TPH-d (Rerun) mg/kg	TPH-d-Dup mg/kg
I18-SB02-1-S	SB02	2/19/1997	10.5	Tt Field	100<X<500	NA	NA
I18-SB02-2-S	SB02	2/19/1997	10.5	Tt Field	100<X<500	NA	NA
I18-SB02-3-S	SB02	2/19/1997	20.5	Tt Field	100<X<500	NA	NA
I18-SB02-4-S	SB02	2/19/1997	30.5	Tt Field	100<X<500	NA	NA
I18-SB02-5-S	SB02	2/19/1997	39.5	Tt Field	100<X<500	NA	NA
I18-SB03-1-S	SB03	2/20/1997	10	Tt Field	100<X<500	NA	NA
I18-SB03-2-S	SB04	2/20/1997	20.5	Tt Field	100<X<500	NA	NA
I18-SB03-3-S	SB03	2/20/1997	30.5	Tt Field	100<X<500	NA	NA
I18-SB03-4-S	SB03	2/20/1997	39	Tt Field	100<X<500	NA	X<0
I18-SB04-1-S	SB04	2/19/1997	11	Tt Field	100<X<500	NA	NA
I18-SB04-2-S	SB04	2/19/1997	20.5	Tt Field	100<X<500	NA	NA
I18-SB04-3-S	SB04	2/19/1997	20.5	Tt Field	100<X<500	NA	X<0
I18-SB04-4-S	SB04	2/19/1997	30.5	Tt Field	100<X<500	NA	NA
I18-SB04-5-S	SB04	2/19/1997	39.5	Tt Field	100<X<500	NA	NA
I18-SB05-1-S	SB05	2/19/1997	10.5	Tt Field	100<X<500	NA	NA
I18-SB05-2-S	SB05	2/19/1997	20.5	Tt Field	100<X<500	NA	0<X<20
I18-SB05-3-S	SB05	2/19/1997	32.5	Tt Field	100<X<500	NA	NA
I18-SB05-4-S	SB05	2/19/1997	39	Tt Field	100<X<500	NA	NA
Analyses					18	3	0
Detections					0	0	0
Minimum Concentration					0	0	0
Maximum Concentration					0	0	0
HWAD--PCG					NE	NE	NE
HWAD--PCG Hits					NE	NE	NE

TPH  
Method 8015M (BCA Field)

Sample ID	Location ID	Sample Date	Depth	Lab	TPH (as diesel) mg/kg
I18-DP151	HA10	7/27/1994	2.5	BCA Field	11.9
I18-DP155	HA10	7/27/1994	5	BCA Field	8.2
I18-HA01-1-S	HA01	7/26/1994	1	BCA Field	<0.2
I18-HA02-1-S	HA02	7/26/1994	2	BCA Field	1600 <sup>J</sup>
I18-HA02-2-S	HA02	7/26/1994	5	BCA Field	1400 <sup>J</sup>
I18-HA03-1-S	HA03	7/26/1994	2	BCA Field	1.3 <sup>J</sup>
I18-HA03-2-S	HA03	7/26/1994	5	BCA Field	<0.2
I18-HA04-1-S	HA04	7/26/1994	2	BCA Field	<0.2
I18-HA05-1-S	HA05	7/26/1994	2.5	BCA Field	<0.2
I18-HA05-2-S	HA05	7/26/1994	5	BCA Field	<0.2
I18-HA06-1-S	HA06	7/27/1994	2	BCA Field	38
I18-HA06-2-S	HA06	7/27/1994	5	BCA Field	470
I18-HA07-1-S	HA07	7/27/1994	2.5	BCA Field	<1
I18-HA07-2-S	HA07	7/27/1994	5	BCA Field	<0.2
I18-HA08-1-S	HA08	7/27/1994	2	BCA Field	<1
I18-HA08-2-S	HA08	7/27/1994	5	BCA Field	<0.2
I18-HA09-1-S	HA09	7/27/1994	2	BCA Field	1.6 <sup>J</sup>
I18-HA10-1-S	HA10	7/27/1994	2.5	BCA Field	4.4 <sup>J</sup>
I18-HA10-2-S	HA10	7/27/1994	5	BCA Field	3.5 <sup>J</sup>
I18-HA11-1-S	HA11	7/28/1994	2	BCA Field	<0.2
I18-HA11-2-S	HA11	7/28/1994	5	BCA Field	<0.2
I18-HA12-1-S	HA12	7/28/1994	2	BCA Field	<1
I18-HA13-1-S	HA13	7/28/1994	2	BCA Field	<1
I18-HA13-2-S	HA13	7/28/1994	5	BCA Field	<1
I18-HA14-1-S	HA14	7/28/1994	2	BCA Field	<1
I18-HA14-2-S	HA14	7/28/1994	5	BCA Field	<0.2
I18-HA15-1-S	HA15	7/28/1994	2	BCA Field	<1
I18-HA15-2-S	HA15	7/28/1994	5	BCA Field	<1
I18-HA16-1-S	HA16	7/28/1994	2	BCA Field	<1
I18-HA16-2-S	HA16	7/28/1994	5	BCA Field	<0.2
Analyses					30
Detections					10
Minimum Concentration					1.3
Maximum Concentration					1600
HWAD_-_PCG					NE
HWAD_-_PCG Hits					NE

**TPH**  
**Method M8015E and M8015V (APCL)**

Sample ID	Location ID	Sample Date	Depth	Lab	C8-C10 (Gasoline) mg/kg	C11-C22 (Diesel) mg/kg	C23-C30 (Motor oil) mg/kg	C31-C40 (Heavy oil) mg/kg
I18-SB02-5-S	SB02	2/19/1997	39.5	APCL	<0.16	<0.88	<0.4	<0.3
I18-SB03-4-S	SB03	2/20/1997	39	APCL	<0.16	<0.85	<0.39	<0.29
I18-SB04-3-S	SB04	2/19/1997	20.5	APCL	<0.17	<0.91	<0.42	<0.31
I18-SB05-2-S	SB05	2/19/1997	20.5	APCL	<0.16	<0.84	21	64
Analyses					4	4	4	4
Detections					0	0	1	1
Minimum Concentration					0	0	21	64
Maximum Concentration					0	0	21	64
HWAD_-_PCG					NE	NE	NE	NE
HWAD_-_PCG Hits					NE	NE	NE	NE

OC Pesticides and PCBs  
Method 8081 (BCA)

Sample ID	Location ID	Sample Date	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1248		Aroclor 1254		Aroclor 1260		Total PCBs	
				mg/kg	g/m <sup>3</sup>	mg/kg	g/m <sup>3</sup>	mg/kg	g/m <sup>3</sup>	mg/kg	g/m <sup>3</sup>	mg/kg	g/m <sup>3</sup>	mg/kg	g/m <sup>3</sup>	mg/kg	g/m <sup>3</sup>
I18-DP152	HA10	7/27/1994	2.5	<0.03	<0.03	<0.02	<0.03	<0.03	<0.02	<0.02	<0.02	<0.007	<0.007	NA	0	0	NE
I18-DP156	HA10	7/27/1994	5	<0.03	<0.03	<0.02	<0.03	<0.02	<0.02	<0.02	<0.02	<0.007	<0.007	NA	0	0	NE
Analyses				Detections				Minimum Concentration				Maximum Concentration				PCG	
HWAD - PCG				HWAD - PCG Hits													
25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	0	0	0



OC Pesticides and PCBs  
Method 8081 (APCL)

Sample ID	Location ID	Sample Date	Depth	Lab	Aroclor-1260		beta-BHC		Chlordane		delta-BHC		Endosulfan I		Endosulfan II		Endosulfan sulfate		Endrin		Endrin aldehyde	
					mg/kg	mg/kg	mg/kg	kg/kg	mg/kg	kg/kg	mg/kg	kg/kg	mg/kg	kg/kg	mg/kg	kg/kg	mg/kg	kg/kg	mg/kg	kg/kg	mg/kg	kg/kg
I18-SB02-1-S	SB02	2/19/1997	10.5	APCL	NA	<0.0001	<0.012	<0.00015	<0.0006	<0.0001	<0.00036	<0.0001	<0.0001	<0.00036	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
I18-SB03-1-S	SB03	2/20/1997	10	APCL	NA	<0.0001	<0.01	<0.00012	<0.0005	<0.0009	<0.00029	<0.0009	<0.0009	<0.00029	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	
I18-SB04-1-S	SB04	2/19/1997	11	APCL	NA	<0.0001	<0.012	<0.00014	<0.0006	<0.0001	<0.00035	<0.0001	<0.0001	<0.00035	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
I18-SB05-1-S	SB05	2/19/1997	10.5	APCL	NA	<0.0001	<0.012	<0.00014	<0.0006	<0.0001	<0.00034	<0.0001	<0.0001	<0.00034	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Analyses		0		4		4		4		4		4		4		4		4		4		
Detections		0		0		0		0		0		0		0		0		0		0		
Minimum Concentration		0		0		0		0		0		0		0		0		0		0		
Maximum Concentration		0		0		0		0		0		0		0		0		0		0		
HWAD_-_PCG		25		NE		NE		NE		NE		NE		NE		NE		NE		NE		
HWAD_-_PCG Hits		0		0		0		0		0		0		0		0		0		0		

OC Pesticides and PCBs  
Method 8081 (APCL)

Sample ID	Location ID	Depth	Lab	Sample Date	Analyses			
					Endrin Ketone	gamma-BHC (Lindane)	Heptachlor	Heptachlor epoxide
I18-SB02-1-S	SB02	2/19/1997	10.5	APCL	<0.0001	<0.00006	<0.00015	<0.00009
I18-SB03-1-S	SB03	2/20/1997	10	APCL	<0.00009	<0.00005	<0.00012	<0.00007
I18-SB04-1-S	SB04	2/19/1997	11	APCL	<0.0001	<0.00006	<0.00014	<0.00009
I18-SB05-1-S	SB05	2/19/1997	10.5	APCL	<0.0001	<0.00006	<0.00014	<0.00009
<b>Detections</b>					4	4	4	4
<b>Minimum Concentration</b>					0	0	0	0
<b>Maximum Concentration</b>					0	0	0	0
<b>HWAD_PCG</b>					NE	NE	NE	NE
<b>HWAD_PCG Hits</b>					NE	NE	NE	NE
Toxaphene								
mg/kg								
Metoxychlor								
mg/kg								



### Monitoring Well Evaluation Checklist for Well No. IRPMW49

<b>SWMU / Area</b>	49 Group SW
<b>Aquifer</b>	
<b>Well Condition</b>	
Good	Yes
Describe Problems	None
<b>Purpose of Well</b>	
Primary	Downdgradient of SWMUs 109/10 and 111
Secondary	Regional groundwater data
<b>Retain for Chemical Monitoring (list compounds)</b>	VOCs

**Proposed Sample Frequency** Quarterly

### Analytical Results

Explosive	Sampling Events	Date First Sampled	Date Last Sampled	Analytes	Detections	Highest Concentration	HWAD GW AL	Exceeds Standard	Yes
RDX	12	2/1/97	11/17/99		1	2	0.61	1	
Tetryl					1	0.3	NE	0	
<b>VOC</b>					3	--	--	No	
IPB	12	2/1/97	11/17/99		1	0.6	19	0	
MeCl					2	0.7	5	0	
<b>SVOC</b>					17	--	--	Yes	
Bis(2-ethylhexyl)phthalate					6	270	6	4	
Butyl benzyl phthalate					9	17	100	0	
Di-n-butylphthalate					2	2	3700	0	
<b>Nitrogen Compounds</b>					3	--	--	No	
Ammonia as Nitrogen	4	2/1/97	11/17/99	4	1	0.2	NE	0	
Total Kjeldahl Nitrogen					3	0.4	NE	0	

ND = Non-detect

NE = Not established

Water Characteristics

Sample ID	Sample Date	Ammonia as Nitrogen		Calcium, Total ug/l	Iron, Total ug/l	Kjeldahl Nitrogen, Total mg/l	Magnesium, Total ug/l	Potassium, Total ug/l	Sodium, Total ug/l
		mg/l	ug/l						
IRPMW49-020197-W	2/1/97	<0.06	81700	51.3	0.4	12400	10100	202000	
IRPMW49-042697-W	4/26/97	<0.06	79300	73.7	<0.1	12100	12900	190000	
IRPMW49A-072397-W	7/23/97	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49B-072397-W	7/23/97	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-101597-W	10/15/97	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-030898-W	3/8/98	<0.07	80500	<2.7	0.2	12100	12800 <sup>E</sup>	201000	
IRPMW49-060498-W	6/4/98	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-090398-W	9/3/98	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-120298-W	12/2/98	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-021799-W	2/17/99	0.2 <sup>J</sup>	87400 <sup>J</sup>	9 <sup>J</sup>	0.3	13500 <sup>J</sup>	15300 <sup>J</sup>	221000 <sup>J</sup>	
IRPMW49-052099-W	5/20/99	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-081299-W	8/12/99	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-111799-W	11/17/99	NA	NA	NA	NA	NA	NA	NA	NA
Analyses		4	4	4	4	4	4	4	4
Detections		1	4	3	3	4	4	4	4
Minimum Concentration		0.2	79300	9	0.2	12100	10100	190000	
Maximum Concentration		0.2	87400	73.7	0.4	13500	15300	221000	
HWAD_-_GW_Action_Level				11000					
HWAD_-_GW_Action_Level Hits				0					

## Water Characteristics

Sample ID	Sample Date	Solids, Total Dissolved mg/l
IRPMW49-020197-W	2/1/97	959
IRPMW49-042697-W	4/26/97	959
IRPMW49A-072397-W	7/23/97	NA
IRPMW49B-072397-W	7/23/97	NA
IRPMW49-101597-W	10/15/97	NA
IRPMW49-030898-W	3/8/98	NA
IRPMW49-060498-W	6/4/98	NA
IRPMW49-090398-W	9/3/98	NA
IRPMW49-120298-W	12/2/98	NA
IRPMW49-021799-W	2/17/99	NA
IRPMW49-052099-W	5/20/99	NA
IRPMW49-081299-W	8/12/99	NA
IRPMW49-111799-W	11/17/99	NA
Analyses		2
Detections		2
Minimum Concentration		959
Maximum Concentration		959

HWAD\_-\_GW\_Action\_Level  
HWAD\_-\_GW\_Action\_Level Hits

### Nitrogen Compounds

Sample ID	Sample Date	Ammonia as Nitrogen mg/l	Kieldahl Nitrogen, Total mg/l
IRPMW49-020197-W	2/1/97	<0.06	0.4
IRPMW49-042697-W	4/26/97	<0.06	<0.1
IRPMW49A-072397-W	7/23/97	NA	NA
IRPMW49B-072397-W	7/23/97	NA	NA
IRPMW49-101597-W	10/15/97	NA	NA
IRPMW49-030898-W	3/8/98	<0.07	0.2
IRPMW49-060498-W	6/4/98	NA	NA
IRPMW49-090398-W	9/3/98	NA	NA
IRPMW49-120298-W	12/2/98	NA	NA
IRPMW49-021799-W	2/17/99	0.2	0.3
IRPMW49-052099-W	5/20/99	NA	NA
IRPMW49-081299-W	8/12/99	NA	NA
IRPMW49-111799-W	11/17/99	NA	NA
Analyses		4	4
Detections		1	3
Minimum Concentration		0.2	0.2
Maximum Concentration		0.2	0.4
<u>HWAD_-_GW_Action_Level</u>			
<u>HWAD_-_GW_Action_Level Hits</u>			

**Total Metals**

Sample ID	Sample Date	Arsenic, Total ug/l	Barium, Total ug/l	Beryllium, Total ug/l	Cadmium, Total ug/l	Chromium, Hexavalent mg/l	Chromium, Total ug/l	Lead, Total ug/l	Mercury, Total ug/l
IRPMW49-020197-W	2/1/97	7	NA	<0.2	<0.1	NA	4.1 <sup>J</sup>	<0.6	<0.15
IRPMW49-042697-W	4/26/97	11.2	NA	<0.2	<0.1	NA	4.1 <sup>J</sup>	<0.6	<0.15
IRPMW49A-072397-W	7/23/97	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49B-072397-W	7/23/97	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-101597-W	10/15/97	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-030898-W	3/8/98	15.6	26.1	NA	<0.51	NA	<1	<0.9	<0.16
IRPMW49-060498-W	6/4/98	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-090398-W	9/3/98	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-120298-W	12/2/98	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-021799-W	2/17/99	14.7 <sup>J</sup>	24 <sup>J</sup>	NA	<0.61 <sup>UJ</sup>	NA	2.4 <sup>J</sup>	<1.1 <sup>UJ</sup>	0.33 <sup>J</sup>
IRPMW49-052099-W	5/20/99	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-081299-W	8/12/99	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-111799-W	11/17/99	NA	NA	NA	NA	NA	NA	NA	NA
 Analyses		4	2	2	4	0	4	4	4
Detections		4	2	0	0	0	3	0	1
Minimum Concentration		7	24	0	0	0	2.4	0	0.33
Maximum Concentration		15.6	26.1	0	0	0	4.1	0	0.33
 HWAD_-_GW_Action_Level		50	2000	4	5	0.18	100	15	2
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	0	0

Total Metals

Sample ID	Sample Date	Selenium, Total ug/l	Silver, Total ug/l
IRPMW49-020197-W	2/1/97	6.1	<1.1
IRPMW49-042697-W	4/26/97	<2.3	<1.1
IRPMW49A-072397-W	7/23/97	NA	NA
IRPMW49B-072397-W	7/23/97	NA	NA
IRPMW49-101597-W	10/15/97	NA	NA
IRPMW49-030898-W	3/8/98	5.6	<1
IRPMW49-060498-W	6/4/98	NA	NA
IRPMW49-090398-W	9/3/98	NA	NA
IRPMW49-120298-W	12/2/98	NA	NA
IRPMW49-021799-W	2/17/99	<1.9 <sup>UJ</sup>	<0.9 <sup>UJ</sup>
IRPMW49-052099-W	5/20/99	NA	NA
IRPMW49-081299-W	8/12/99	NA	NA
IRPMW49-111799-W	11/17/99	NA	NA
Analyses		4	4
Detections		2	0
Minimum Concentration		5.6	0
Maximum Concentration		6.1	0
HWAD_-_GW_Action_Level		180	180
HWAD_-_GW_Action_Level Hits		0	0

**Dissolved Metals**

Sample ID	Sample Date	Arsenic, Dissolved ug/l	Barium, Dissolved ug/l	Beryllium, Dissolved ug/l	Cadmium, Dissolved ug/l	Chromium, Dissolved ug/l	Lead, Dissolved ug/l	Mercury, Dissolved ug/l	Selenium, Dissolved ug/l
IRPMW49-020197-W	2/1/97	9	NA	<0.2	<0.1	3.9 <sup>J</sup>	<0.6	<0.15	6.2
IRPMW49-042697-W	4/26/97	12.8	NA	<0.2	0.18 <sup>J</sup>	2.6 <sup>J</sup>	0.91 <sup>J</sup>	<0.15	<2.3
IRPMW49A-072397-W	7/23/97	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49B-072397-W	7/23/97	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-101597-W	10/15/97	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-030898-W	3/8/98	15.4	26.7	NA	<0.51	<1	<0.9	<0.16	<2
IRPMW49-060498-W	6/4/98	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-090398-W	9/3/98	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-120298-W	12/2/98	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-021799-W	2/17/99	19.3	29	NA	<0.61	1.9 <sup>J</sup>	<1.1	0.29 <sup>J</sup>	<1.9
IRPMW49-052099-W	5/20/99	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-081299-W	8/12/99	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW49-111799-W	11/17/99	NA	NA	NA	NA	NA	NA	NA	NA
Analyses		4	2	2	4	4	4	4	4
Detections		4	2	0	1	3	1	1	1
Minimum Concentration		9	26.7	0	0.18	1.9	0.91	0.29	6.2
Maximum Concentration		19.3	29	0	0.18	3.9	0.91	0.29	6.2
HWAD_-_GW_Action_Level		50		4	5	100	15	2	180
HWAD_-_GW_Action_Level Hits		0		0	0	0	0	0	0

Dissolved Metals

Sample ID	Sample Date	Silver, Dissolved ug/l
IRPMW49-020197-W	2/1/97	<1.1
IRPMW49-042697-W	4/26/97	<1.1
IRPMW49A-072397-W	7/23/97	NA
IRPMW49B-072397-W	7/23/97	NA
IRPMW49-101597-W	10/15/97	NA
IRPMW49-030898-W	3/8/98	<1
IRPMW49-060498-W	6/4/98	NA
IRPMW49-090398-W	9/3/98	NA
IRPMW49-120298-W	12/2/98	NA
IRPMW49-021799-W	2/17/99	<0.9
IRPMW49-052099-W	5/20/99	NA
IRPMW49-081299-W	8/12/99	NA
IRPMW49-111799-W	11/17/99	NA
Analyses		4
Detections		0
Minimum Concentration		0
Maximum Concentration		0
HWAD_-_GW_Action_Level		180
HWAD_-_GW_Action_Level Hits		0

**Pesticides**

		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW49-020197-W	2/1/97	<0.039	<0.009	<0.009	<0.014	<0.003	<0.002
IRPMW49-042697-W	4/26/97	<0.039	<0.009	<0.009	<0.014	<0.032	<0.022
IRPMW49A-072397-W	7/23/97	NA	NA	NA	NA	NA	NA
IRPMW49B-072397-W	7/23/97	NA	NA	NA	NA	NA	NA
IRPMW49-101597-W	10/15/97	NA	NA	NA	NA	NA	NA
IRPMW49-030898-W	3/8/98	NA	NA	NA	NA	NA	NA
IRPMW49-060498-W	6/4/98	NA	NA	NA	NA	NA	NA
IRPMW49-090398-W	9/3/98	NA	NA	NA	NA	NA	NA
IRPMW49-120298-W	12/2/98	NA	NA	NA	NA	NA	NA
IRPMW49-021799-W	2/17/99	NA	NA	NA	NA	NA	NA
IRPMW49-052099-W	5/20/99	NA	NA	NA	NA	NA	NA
IRPMW49-081299-W	8/12/99	NA	NA	NA	NA	NA	NA
IRPMW49-111799-W	11/17/99	NA	NA	NA	NA	NA	NA
 Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
 HWAD_--GW_Action_Level		370	50	70	290	0.28	0.2
HWAD_--GW_Action_Level Hits		0	0	0	0	0	0

**Pesticides**

		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW49-020197-W	2/1/97	<0.003	<0.003	<0.002	<0.001	<0.027	<0.029
IRPMW49-042697-W	4/26/97	<0.032	<0.026	<0.018	<0.013	<0.05	<0.029
IRPMW49A-072397-W	7/23/97	NA	NA	NA	NA	NA	NA
IRPMW49B-072397-W	7/23/97	NA	NA	NA	NA	NA	NA
IRPMW49-101597-W	10/15/97	NA	NA	NA	NA	NA	NA
IRPMW49-030898-W	3/8/98	NA	NA	NA	NA	NA	NA
IRPMW49-060498-W	6/4/98	NA	NA	NA	NA	NA	NA
IRPMW49-090398-W	9/3/98	NA	NA	NA	NA	NA	NA
IRPMW49-120298-W	12/2/98	NA	NA	NA	NA	NA	NA
IRPMW49-021799-W	2/17/99	NA	NA	NA	NA	NA	NA
IRPMW49-052099-W	5/20/99	NA	NA	NA	NA	NA	NA
IRPMW49-081299-W	8/12/99	NA	NA	NA	NA	NA	NA
IRPMW49-111799-W	11/17/99	NA	NA	NA	NA	NA	NA
 Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
 HWAD_-_GW_Action_Level		0.2	0.004	0.011	0.037	2	200
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0

### Pesticides

		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW49-020197-W	2/1/97	<0.001	<0.008	<0.01	<0.003	<0.027	<0.004
IRPMW49-042697-W	4/26/97	<0.011	<0.008	<0.01	<0.027	<0.027	<0.038
IRPMW49A-072397-W	7/23/97	NA	NA	NA	NA	NA	NA
IRPMW49B-072397-W	7/23/97	NA	NA	NA	NA	NA	NA
IRPMW49-101597-W	10/15/97	NA	NA	NA	NA	NA	NA
IRPMW49-030898-W	3/8/98	NA	NA	NA	NA	NA	NA
IRPMW49-060498-W	6/4/98	NA	NA	NA	NA	NA	NA
IRPMW49-090398-W	9/3/98	NA	NA	NA	NA	NA	NA
IRPMW49-120298-W	12/2/98	NA	NA	NA	NA	NA	NA
IRPMW49-021799-W	2/17/99	NA	NA	NA	NA	NA	NA
IRPMW49-052099-W	5/20/99	NA	NA	NA	NA	NA	NA
IRPMW49-081299-W	8/12/99	NA	NA	NA	NA	NA	NA
IRPMW49-111799-W	11/17/99	NA	NA	NA	NA	NA	NA
 Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
 HWAD_-_GW_Action_Level			1100		0.0042	7	220
HWAD_-_GW_Action_Level Hits			0		0	0	0

**Pesticides**

		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW49-020197-W	2/1/97	<0.003	<0.014	<0.0008	<0.003	<0.002	<0.002
IRPMW49-042697-W	4/26/97	<0.025	<0.14	<0.008	<0.028	<0.02	<0.017
IRPMW49A-072397-W	7/23/97	NA	NA	NA	NA	NA	NA
IRPMW49B-072397-W	7/23/97	NA	NA	NA	NA	NA	NA
IRPMW49-101597-W	10/15/97	NA	NA	NA	NA	NA	NA
IRPMW49-030898-W	3/8/98	NA	NA	NA	NA	NA	NA
IRPMW49-060498-W	6/4/98	NA	NA	NA	NA	NA	NA
IRPMW49-090398-W	9/3/98	NA	NA	NA	NA	NA	NA
IRPMW49-120298-W	12/2/98	NA	NA	NA	NA	NA	NA
IRPMW49-021799-W	2/17/99	NA	NA	NA	NA	NA	NA
IRPMW49-052099-W	5/20/99	NA	NA	NA	NA	NA	NA
IRPMW49-081299-W	8/12/99	NA	NA	NA	NA	NA	NA
IRPMW49-111799-W	11/17/99	NA	NA	NA	NA	NA	NA
 Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
 HWAD_-_GW_Action_Level				2			0.2
HWAD_-_GW_Action_Level Hits				0			0

**Pesticides**

		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW49-020197-W	2/1/97	<0.002	<0.0009	<1	<1	<0.003	<0.029
IRPMW49-042697-W	4/26/97	<0.024	<0.009	<1 <sup>UJ</sup>	<1 <sup>UJ</sup>	<0.026	<0.29
IRPMW49A-072397-W	7/23/97	NA	NA	NA	NA	NA	NA
IRPMW49B-072397-W	7/23/97	NA	NA	NA	NA	NA	NA
IRPMW49-101597-W	10/15/97	NA	NA	NA	NA	NA	NA
IRPMW49-030898-W	3/8/98	NA	NA	NA	NA	NA	NA
IRPMW49-060498-W	6/4/98	NA	NA	NA	NA	NA	NA
IRPMW49-090398-W	9/3/98	NA	NA	NA	NA	NA	NA
IRPMW49-120298-W	12/2/98	NA	NA	NA	NA	NA	NA
IRPMW49-021799-W	2/17/99	NA	NA	NA	NA	NA	NA
IRPMW49-052099-W	5/20/99	NA	NA	NA	NA	NA	NA
IRPMW49-081299-W	8/12/99	NA	NA	NA	NA	NA	NA
IRPMW49-111799-W	11/17/99	NA	NA	NA	NA	NA	NA
 Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
 HWAD_-_GW_Action_Level		0.4	0.2	18	37	40	3
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0

**Volatile Organic Compounds**

Sample ID	Sample Date	1,1,1,2-Tetrachloroethane						
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW49-020197-W	2/1/97	<0.2	<0.2	<0.2	<0.2	<0.3	<0.3	<0.3
IRPMW49-042697-W	4/26/97	<0.1	<0.1	<0.2	<0.2	<0.1	<0.7	<0.1
IRPMW49A-072397-W	7/23/97	<0.2	<0.1	<0.2	<0.2	<0.3	<0.5	<0.2
IRPMW49B-072397-W	7/23/97	<0.2	<0.1	<0.2	<0.2	<0.3	<0.5	<0.2
IRPMW49-101597-W	10/15/97	<0.2	<0.1	<0.2	<0.2	<0.3	<0.5	<0.2
IRPMW49-030898-W	3/8/98	<0.35	<0.36	<0.38	<0.36	<0.22	<0.34	<0.28
IRPMW49-060498-W	6/4/98	<0.17	<0.24	<0.17	<0.12	<0.17	<0.22	<0.24
IRPMW49-090398-W	9/3/98	<0.23	<0.23	<0.26	<0.27 <sup>UJ</sup>	<0.18	<0.28	<0.29
IRPMW49-120298-W	12/2/98	<0.17	<0.24	<0.17	<0.12	<0.17	<0.22	<0.24
IRPMW49-021799-W	2/17/99	<0.21	<0.14	<0.34	<0.22	<0.22	<0.31	<0.33
IRPMW49-052099-W	5/20/99	<0.05	<0.06	<0.11	<0.06	<0.07	<0.06	<0.05
IRPMW49-081299-W	8/12/99	<0.3	<0.06	<0.13	<0.17	<0.09	<0.13	<0.12
IRPMW49-111799-W	11/17/99	<0.21	<0.14	<0.34	<0.22	<0.22	<0.31	<0.33
Analyses		13	13	13	13	13	13	13
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.43	200	0.055	5	810	7	
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	

**Volatile Organic Compounds**

Sample ID	Sample Date	1,2,3-Trichlorobenzene							
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW49-020197-W	2/1/97	<0.4	<0.8	<0.4	<0.2	<0.3	<0.2	<0.8	
IRPMW49-042697-W	4/26/97	<0.5	<0.2	<0.3	<0.1	<0.2	<0.4	<0.2	
IRPMW49A-072397-W	7/23/97	<0.3	<0.4	<0.3	<0.3	<0.3	<0.4	<0.5	
IRPMW49B-072397-W	7/23/97	<0.3	<0.4	<0.3	<0.3	<0.3	<0.4	<0.5	
IRPMW49-101597-W	10/15/97	<0.3	<0.4	<0.3	<0.3	<0.3	<0.4	<0.5	
IRPMW49-030898-W	3/8/98	<0.3	<0.31	<0.3	<0.31	<0.31	<0.36	<0.36	
IRPMW49-060498-W	6/4/98	<0.26	<0.17 <sup>UJ</sup>	<0.34	<0.15	<0.18	<0.15	<0.15	
IRPMW49-090398-W	9/3/98	<0.15	<0.38	<0.29	<0.34	<0.34	<0.27	<0.21	
IRPMW49-120298-W	12/2/98	<0.26	<0.17 <sup>UJ</sup>	<0.34	<0.15	<0.18	<0.15	<0.15	
IRPMW49-021799-W	2/17/99	<0.28	<0.41	<0.33	<0.25	<0.17	<0.25	<0.31	
IRPMW49-052099-W	5/20/99	<0.16	<0.12	<0.09	<0.09	<0.08	<0.07	<0.07	
IRPMW49-081299-W	8/12/99	<0.2	<0.27	<0.09	<0.34	<0.1	<0.24	<0.07	
IRPMW49-111799-W	11/17/99	<0.28	<0.41	<0.33	<0.25	<0.17	<0.25	<0.31	
Analyses		13	13	13	13	13	13	13	
Detections		0	0	0	0	0	0	0	
Minimum Concentration		0	0	0	0	0	0	0	
Maximum Concentration		0	0	0	0	0	0	0	
HWAD_-_GW_Action_Level		0.0016	70	12	0.05	600	5		
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	0	

**Volatile Organic Compounds**

Sample ID	Sample Date	1,2-Dichloropropane		1,3,5-Trimethylbenzene		1,3-Dichlorobenzene		1,4-Dichlorobenzene		2,2-Dichloropropane		2-Chlorotoluene	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW49-020197-W	2/1/97	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
IRPMW49-042697-W	4/26/97	<0.1	<0.1	<0.2	<0.1	<0.2	<0.1	<0.2	<0.2	<0.8 <sup>UJ-</sup>	<0.8	<0.2	
IRPMW49A-072397-W	7/23/97	<0.2	<0.2	<0.4	<0.2	<0.2	<0.3	<0.3	<0.4	<0.4	<0.4	<0.2	
IRPMW49B-072397-W	7/23/97	<0.2	<0.2	<0.4	<0.2	<0.2	<0.3	<0.3	<0.4	<0.4	<0.4	<0.2	
IRPMW49-101597-W	10/15/97	<0.2	<0.2	<0.4	<0.2	<0.3	<0.4	<0.3	<0.4	<0.4	<0.4	<0.2	
IRPMW49-030898-W	3/8/98	<0.22	<0.38	<0.38	<0.36	<0.3	<0.31	<0.31	<0.31	<0.31	<0.31	<0.3	
IRPMW49-060498-W	6/4/98	<0.17	<0.12	<0.24	<0.17	<0.17	<0.31	<0.31	<0.31	<0.31	<0.31	<0.36	
IRPMW49-090398-W	9/3/98	<0.32	<0.3	<0.38	<0.16	<0.44	<0.21	<0.21	<0.21	<0.21	<0.21	<0.29	
IRPMW49-120298-W	12/2/98	<0.17	<0.12	<0.24	<0.17	<0.17	<0.31	<0.31	<0.31	<0.31	<0.31	<0.36	
IRPMW49-021799-W	2/17/99	<0.22	<0.27	<0.27	<0.14	<0.28	<0.57	<0.57	<0.57	<0.57	<0.57	<0.28	
IRPMW49-052099-W	5/20/99	<0.07	<0.1	<0.07	<0.07	<0.09	<0.07	<0.09	<0.07	<0.07 <sup>UJ-</sup>	<0.07	<0.11	
IRPMW49-081299-W	8/12/99	<0.14	<0.1	<0.08	<0.09	<0.12	<0.2	<0.12	<0.2	<0.2	<0.2	<0.14	
IRPMW49-111799-W	11/17/99	<0.22	<0.27	<0.27	<0.14	<0.28	<0.57	<0.57	<0.57	<0.57	<0.57	<0.28	
Analyses		13	13	13	13	13	13	13	13	13	13	13	
Detections		0	0	0	0	0	0	0	0	0	0	0	
Minimum Concentration		0	0	0	0	0	0	0	0	0	0	0	
Maximum Concentration		0	0	0	0	0	0	0	0	0	0	0	
HWAD_-_GW_Action_Level		5		17		75		120					
HWAD_-_GW_Action_Level Hits		0		0		0		0					

**Volatile Organic Compounds**

Sample ID	Sample Date	4-Chlorotoluene ug/l	4-Isopropyltoluene ug/l	Benzene ug/l	Bromobenzene ug/l	Bromochloromethane ug/l	Bromodichloromethane ug/l	Bromoform ug/l
IRPMW49-020197-W	2/1/97	<0.3	<0.2	<0.2	<0.3	<0.5	<0.2	<0.4
IRPMW49-042697-W	4/26/97	<0.2	<0.3	<0.2	<0.1	<0.2	<0.1	<0.2
IRPMW49A-072397-W	7/23/97	<0.2	<0.2	<0.2	<0.3	<0.4	<0.2	<0.2
IRPMW49B-072397-W	7/23/97	<0.2	<0.2	<0.2	<0.3	<0.4	<0.2	<0.2
IRPMW49-101597-W	10/15/97	<0.2	<0.2	<0.2	<0.3	<0.4	<0.2	<0.2
IRPMW49-030898-W	3/8/98	<0.4	<0.36	<0.36	<0.31	<0.47	<0.34	<0.35
IRPMW49-060498-W	6/4/98	<0.36	<0.15	<0.36	<0.15	<0.25	<0.15	<0.26 <sup>UJ</sup>
IRPMW49-090398-W	9/3/98	<0.38	<0.38	<0.14	<0.32	<0.33	<0.29	<0.45
IRPMW49-120298-W	12/2/98	<0.36	<0.15	<0.36	<0.15	<0.25	<0.15	<0.26
IRPMW49-021799-W	2/17/99	<0.37	<0.22	<0.33	<0.3	<0.4	<0.18	<0.27
IRPMW49-052099-W	5/20/99	<0.11	<0.1	<0.09	<0.07	<0.06	<0.06	<0.08
IRPMW49-081299-W	8/12/99	<0.21	<0.08	<0.1	<0.12	<0.26	<0.09	<0.2
IRPMW49-111799-W	11/17/99	<0.37	<0.22	<0.33	<0.3	<0.4	<0.18	<0.27
Analyses		13	13	13	13	13	13	13
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level				5		100	100	
HWAD_-_GW_Action_Level Hits				0		0	0	

**Volatile Organic Compounds**

Sample ID	Sample Date	Bromomethane ug/l	Carbon tetrachloride ug/l	Chlorobenzene ug/l	Chloroethane ug/l	Chloroform ug/l	Chloromethane ug/l	cis-1,2-Dichloroethene ug/l
IRPMW49-020197-W	2/1/97	<0.2	<0.2	<0.3	<0.2	<0.2	<0.2	<0.2
IRPMW49-042697-W	4/26/97	<0.2 <sup>UJ</sup>	<0.1 <sup>UJ</sup>	<0.1	<0.2	<0.1	<0.2	<0.2
IRPMW49A-072397-W	7/23/97	<0.1	<0.2	<0.2	<0.2	<0.2	<0.3	<0.2
IRPMW49B-072397-W	7/23/97	<0.1	<0.2	<0.2	<0.2	<0.2	<0.3	<0.2
IRPMW49-101597-W	10/15/97	<0.1	<0.2	<0.2	<0.2	<0.2	<0.3	<0.2
IRPMW49-030898-W	3/8/98	<0.96	<0.35	<0.26	<0.57	<0.38	<0.72	<0.28
IRPMW49-060498-W	6/4/98	<0.46	<0.24	<0.26	<0.22	<0.15	<0.3 <sup>UJ</sup>	<0.26
IRPMW49-090398-W	9/3/98	<0.45	<0.27	<0.23	<0.48	<0.22	<0.44	<0.3
IRPMW49-120298-W	12/2/98	<0.46	<0.24	<0.26	<0.22	<0.15	<0.3	<0.26
IRPMW49-021799-W	2/17/99	<1.3 <sup>UJ</sup>	<0.43 <sup>UJ</sup>	<0.23	<0.53 <sup>UJ</sup>	<0.24	<0.34	<0.26
IRPMW49-052099-W	5/20/99	<0.08	<0.06	<0.05	<0.07	<0.07	<0.34	<0.17
IRPMW49-081299-W	8/12/99	<0.39	<0.18	<0.14	<0.43	<0.1	<0.49	<0.1
IRPMW49-111799-W	11/17/99	<1.3	<0.43	<0.23	<0.53	<0.24	<0.34	<0.26
Analyses		13	13	13	13	13	13	13
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		8.7	5	100		100	1.5	70
HWAD_-_GW_Action_Level Hits		0	0	0		0	0	0

**Volatile Organic Compounds**

Sample ID	Sample Date	cis-1,3-Dichloropropene ug/l	Dibromochloromethane ug/l	Dibromochloropropane ug/l	Dibromomethane ug/l	Dichlorodifluoromethane ug/l	Ethylbenzene ug/l	Hexachlorobutadiene ug/l
IRPMW49-020197-W	2/1/97	NA	<0.2	<0.9	<0.2	<0.2	<0.3	<0.4
IRPMW49-042697-W	4/26/97	<0.2	<0.1	<0.2	<0.2	<0.1	<0.2	<0.3
IRPMW49A-072397-W	7/23/97	<0.2	<0.2	<0.5 <sup>UJ</sup>	<0.2	<0.5	<0.2	<0.2
IRPMW49B-072397-W	7/23/97	<0.2	<0.2	<0.5 <sup>UJ</sup>	<0.2	<0.5	<0.2	<0.2
IRPMW49-101597-W	10/15/97	<0.2	<0.2	<0.5	<0.2	<0.5	<0.2	<0.2
IRPMW49-030898-W	3/8/98	<0.22	<0.28	<0.63	<0.31	<0.47	<0.36	<0.36
IRPMW49-060498-W	6/4/98	<0.17	<0.17	<0.28 <sup>UJ</sup>	<0.17	<0.31	<0.24	<0.36
IRPMW49-090398-W	9/3/98	<0.19	<0.27	<0.45 <sup>UJ</sup>	<0.45	<0.43	<0.23	<0.28
IRPMW49-120298-W	12/2/98	<0.17	<0.17	<0.28	<0.17	<0.31	<0.24	<0.36
IRPMW49-021799-W	2/17/99	<0.32	<0.2	<0.2	<0.25	<0.41	<0.34	<0.23
IRPMW49-052099-W	5/20/99	<0.04	<0.07	<0.13	<0.06	<0.06	<0.05	<0.12
IRPMW49-081299-W	8/12/99	<0.11	<0.1	<2.1	<0.27	<0.32	<0.03	<0.34
IRPMW49-111799-W	11/17/99	<0.32	<0.2	<0.2	<0.25	<0.41	<0.34	<0.23
<b>Analyses</b>		12	13	13	13	13	13	13
<b>Detections</b>		0	0	0	0	0	0	0
<b>Minimum Concentration</b>		0	0	0	0	0	0	0
<b>Maximum Concentration</b>		0	0	0	0	0	0	0
<b>HWAD_-_GW_Action_Level</b>			100	0.2		390	700	0.86
<b>HWAD_-_GW_Action_Level Hits</b>			0	0		0	0	0

**Volatile Organic Compounds**

Sample ID	Sample Date	Isopropylbenzene ug/l	Methylene chloride ug/l	MTBE ug/l	n-Butylbenzene ug/l	n-Propylbenzene ug/l	Naphthalene ug/l	sec-Butylbenzene ug/l
IRPMW49-020197-W	2/1/97	0.6 <sup>J</sup>	<0.4	<0.5	<0.2	<0.3	<0.4	<0.2
IRPMW49-042697-W	4/26/97	<0.2	<0.7	<2.1	<0.3	<0.2	<0.8	<0.2
IRPMW49A-072397-W	7/23/97	<0.3	<0.6	<0.4	<0.3	<0.2	<0.3	<0.2
IRPMW49B-072397-W	7/23/97	<0.3	<0.6	<0.4	<0.3	<0.2	<0.3	<0.2
IRPMW49-101597-W	10/15/97	<0.3	<0.6	<0.4	<0.3	<0.2	<0.3	<0.2
IRPMW49-030898-W	3/8/98	<0.36	<0.6	<0.49	<0.22	<0.3	<0.22	<0.4
IRPMW49-060498-W	6/4/98	<0.15	<0.28 <sup>UJ</sup>	<0.18	<0.49	<0.22	<0.28	<0.22
IRPMW49-090398-W	9/3/98	<0.29	<0.45	<0.55	<0.26	<0.27	<0.44	<0.37
IRPMW49-120298-W	12/2/98	<0.15	<0.28	<0.18	<0.49	<0.22	<0.28	<0.22
IRPMW49-021799-W	2/17/99	<0.24	<0.37	<0.41	<0.28	<0.2	<0.22	<0.2
IRPMW49-052099-W	5/20/99	<0.11	<0.06 <sup>UJ</sup>	<0.13	<0.09	<0.1	<0.12 <sup>UJ</sup>	<0.1
IRPMW49-081299-W	8/12/99	<0.09	0.6	<0.16	<0.31	<0.16	<0.13	<0.1
IRPMW49-111799-W	11/17/99	<0.24	0.7 <sup>J</sup>	<0.41	<0.28	<0.2	<0.22	<0.2
<b>Analyses</b>		13	13	13	13	13	13	13
<b>Detections</b>		1	2	0	0	0	0	0
<b>Minimum Concentration</b>		0.6	0.6	0	0	0	0	0
<b>Maximum Concentration</b>		0.6	0.7	0	0	0	0	0
<b>HWAD_-_GW_Action_Level</b>		19	5	20			6.2	
<b>HWAD_-_GW_Action_Level Hits</b>		0	0	0			0	

**Volatile Organic Compounds**

Sample ID	Sample Date	Styrene ug/l	tert-Butylbenzene ug/l	Tetrachloroethene ug/l	Toluene ug/l	trans-1,2-Dichloroethene ug/l	trans-1,3-Dichloropropene ug/l	Trichloroethene ug/l
IRPMW49-020197-W	2/1/97	<0.2	<0.2	<0.3	<0.3	<0.3	NA	<0.3
IRPMW49-042697-W	4/26/97	<0.1	<0.3	<0.1	<0.1	<0.2	<0.2	<0.1
IRPMW49A-072397-W	7/23/97	<0.2	<0.2	<0.2	<0.3	<0.5	<0.3	<0.3
IRPMW49B-072397-W	7/23/97	<0.2	<0.2	<0.2	<0.3	<0.5	<0.3	<0.3
IRPMW49-101597-W	10/15/97	<0.2	<0.2	<0.2	<0.3	<0.5	<0.3	<0.3
IRPMW49-030898-W	3/8/98	<0.36	<0.3	<0.36	<0.97	<0.35	<0.36	<0.36
IRPMW49-060498-W	6/4/98	<0.28	<0.24	<0.35	<0.24	<0.25	<0.15	<0.24
IRPMW49-090398-W	9/3/98	<0.12	<0.25	<0.16	<0.21	<0.27	<0.32	<0.26
IRPMW49-120298-W	12/2/98	<0.28	<0.24	<0.35	<0.24	<0.25	<0.15	<0.24
IRPMW49-021799-W	2/17/99	<0.22	<0.21	<0.24	<0.37	<0.46	<0.48	<0.26
IRPMW49-052099-W	5/20/99	<0.07	<0.1	<0.07	<0.06	<0.07	<0.05	<0.05
IRPMW49-081299-W	8/12/99	<0.16	<0.17	<0.21	<0.4	<0.27	<0.14	<0.3
IRPMW49-111799-W	11/17/99	<0.22	<0.21	<0.24	<0.37	<0.46	<0.48	<0.26
Analyses		13	13	13	13	13	12	13
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		100		5	1000	100	0.081	5
HWAD_-_GW_Action_Level Hits		0		0	0	0	0	0

**Volatile Organic Compounds**

Sample ID	Sample Date	Trichlorofluoromethane	Vinyl chloride	Xylenes-m&-p	Xylene-o
		ug/l	ug/l	ug/l	ug/l
IRPMW49-020197-W	2/1/97	<0.2	<0.2	<0.5	<0.2
IRPMW49-042697-W	4/26/97	<0.1	<0.1	<0.2	<0.1
IRPMW49A-072397-W	7/23/97	<0.5	<0.3	<0.4	<0.3
IRPMW49B-072397-W	7/23/97	<0.5	<0.3	<0.4	<0.3
IRPMW49-101597-W	10/15/97	<0.5	<0.3	<0.4	<0.3
IRPMW49-030898-W	3/8/98	<0.31	<0.38	NA	<0.34
IRPMW49-060498-W	6/4/98	<0.31	<0.3	NA	<0.24
IRPMW49-090398-W	9/3/98	<0.44	<0.36	NA	<0.19
IRPMW49-120298-W	12/2/98	<0.31	<0.3	NA	<0.24
IRPMW49-021799-W	2/17/99	<0.73	<0.51	<0.93	<0.3
IRPMW49-052099-W	5/20/99	<0.04	<0.25	<0.11	<0.03
IRPMW49-081299-W	8/12/99	<0.25	<0.18	<0.17	<0.1
IRPMW49-111799-W	11/17/99	<0.73	<0.51	<0.93	<0.3
Analyses		13	13	9	13
Detections		0	0	0	0
Minimum Concentration		0	0	0	0
Maximum Concentration		0	0	0	0
HWAD_-_GW_Action_Level		1300		10000	10000
HWAD_-_GW_Action_Level Hits		0		0	0

**Semivolatile Organic Compounds**

Sample ID	Sample Date	1,2,4,5-Tetrachlorobenzene ug/l	1,2,4-Trichlorobenzene ug/l	1,2-Dichlorobenzene ug/l	1,2-Diphenylhydrazine ug/l	1,3-Dichlorobenzene ug/l	1,4-Dichlorobenzene ug/l	1-Chloronaphthalene ug/l
IRPMW49-020197-W	2/1/97	<1.4	<0.8	<0.7	<0.5	<0.5	<0.6	<3.4
IRPMW49-042697-W	4/26/97	<1.3	<1.8	<1.4	<2.7	<1.3	<1.5	<3.6
IRPMW49A-072397-W	7/23/97	<1.4	<0.8	<0.7	<0.5	<0.5	<0.6	<3.4
IRPMW49B-072397-W	7/23/97	<1.4	<0.8	<0.7	<0.5	<0.5	<0.6	<3.4
IRPMW49-101597-W	10/15/97	<1.4	<0.8	<0.7	<0.5	<0.5	<0.6	<3.4
IRPMW49-030898-W	3/8/98	<1.6	<1.6	<1.6	<0.54	<1.5	<1.4	<3.5
IRPMW49-060498-W	6/4/98	<1.2	<0.94	<1	<0.54	<0.9	<1	<1.2
IRPMW49-090398-W	9/3/98	<19.2	<15.2	<16	<8.8	<16	<16	<19.2
IRPMW49-120298-W	12/2/98	<1.3	<1.1	<1.1	<1.5	<0.9	<1	<1.2
IRPMW49-021799-W	2/17/99	<1.4	<1.6	<1.4	<0.87	<1.4	<1.3	<1.2
IRPMW49-052099-W	5/20/99	<1.3	<1.5	<1.4	<1.6	<1.1	<1.2	<1.2
IRPMW49-081299-W	8/12/99	<1.4	<1.6	<1.4	<0.87	<1.4	<1.3	<1.2
IRPMW49-111799-W	11/17/99	<1.3	<1.5	<1.4	<1.6	<1.1	<1.2	<1.2
Analyses		13	13	13	13	13	13	13
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_GW_Action_Level		11	70	600	0.084	17	75	
HWAD_GW_Action_Level Hits		0	0	0	0	0	0	

**Semivolatile Organic Compounds**

Sample ID	Sample Date	1-Naphthylamine ug/l	2,3,4,6-Tetrachlorophenol ug/l	2,4,5-Trichlorophenol ug/l	2,4,6-Trichlorophenol ug/l	2,4-Dichlorophenol ug/l	2,4-Dimethylphenol ug/l	2,4-Dinitrophenol ug/l
IRPMW49-020197-W	2/1/97	<0.7	<0.5	<1.7	<0.5	<0.6	<0.9	<13 <sup>UJ</sup>
IRPMW49-042697-W	4/26/97	<3.9	<1.4	<1.2	<1.1	<1.5	<5.2	<9.2 <sup>UJ</sup>
IRPMW49A-072397-W	7/23/97	<0.7	<0.5	<1.7	<0.5	<0.6	<0.9	<13
IRPMW49B-072397-W	7/23/97	<0.7	<0.5	<1.7	<0.5	<0.6	<0.9	<13
IRPMW49-101597-W	10/15/97	<0.7 <sup>UJ</sup>	<0.5	<1.7	<0.5	<0.6	<0.9	<13
IRPMW49-030898-W	3/8/98	<2.4	<1.7	<1.4	<1.7	<1.6	<1.4	<12
IRPMW49-060498-W	6/4/98	<0.84	<1.1	<0.9	<1.2	<1.2	<1.2	<6
IRPMW49-090398-W	9/3/98	<13.6 <sup>UJ</sup>	<17.6	<16	<19.2	<19.2	<19.2	<96
IRPMW49-120298-W	12/2/98	<0.74	<1.5	<1.3	<1.3	<1.2	<1.1	<2.1
IRPMW49-021799-W	2/17/99	<4.7	<1.3	<1.8	<1.7	<1.8	<1.4	<11
IRPMW49-052099-W	5/20/99	<4.7	<1.7	<1.5	<1.5	<1.8	<1.3	<11
IRPMW49-081299-W	8/12/99	<4.7	<1.3	<1.8	<1.7	<1.8	<1.4	<11
IRPMW49-111799-W	11/17/99	<4.7	<1.7	<1.5	<1.5	<1.8	<1.3	<11 <sup>UJ</sup>
Analyses		13	13	13	13	13	13	13
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		1100	3700	6.1	110	730	73	
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	

**Semivolatile Organic Compounds**

Sample ID	Sample Date	2,4-Dinitrotoluene ug/l	2,6-Dichlorophenol ug/l	2,6-Dinitrotoluene ug/l	2-Chloronaphthalene ug/l	2-Chlorophenol ug/l	2-Methylnaphthalene ug/l	2-Methylphenol (o-Cresol) ug/l
IRPMW49-020197-W	2/1/97	<0.7	<0.6	<0.5	<0.8	<0.7	<0.8	<0.5
IRPMW49-042697-W	4/26/97	<0.2	<1.5	<1.1	<2	<1.5	<2.1	<1.7
IRPMW49A-072397-W	7/23/97	<0.7	<0.6	<0.5	<0.8	<0.7	<0.8	<0.5
IRPMW49B-072397-W	7/23/97	<0.7	<0.6	<0.5	<0.8	<0.7	<0.8	<0.5
IRPMW49-101597-W	10/15/97	<0.7	NA	<0.5	<0.8	<0.7	<0.8	<0.5
IRPMW49-030898-W	3/8/98	<1.7	NA	<1.7	<1.5	<1.3	<1.1	<2.3
IRPMW49-060498-W	6/4/98	<0.54	NA	<1.2	<1.6	<1.1	<1.2	<2.5
IRPMW49-090398-W	9/3/98	<8.8	NA	<19.2	<25.6	<17.6	<19.2	<40
IRPMW49-120298-W	12/2/98	<1.2	NA	<1.2	<1.1	<1.2	<1.1	<2.7
IRPMW49-021799-W	2/17/99	<1.5	NA	<1.8	<2.6	<1.3	<2.3	<0.7
IRPMW49-052099-W	5/20/99	<1.2	NA	<1.7	<1.7	<1.5	<1.7	<1.2
IRPMW49-081299-W	8/12/99	<1.5	NA	<1.8	<2.6	<1.3	<2.3	<0.7
IRPMW49-111799-W	11/17/99	<1.2	NA	<1.7	<1.7	<1.5	<1.7	<1.2
Analyses		13	4	13	13	13	13	13
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		73		37	490	38		1800
HWAD_-_GW_Action_Level Hits		0		0	0	0		0

**Semivolatile Organic Compounds**

Sample ID	Sample Date	2-Naphthylamine ug/l	2-Nitroaniline ug/l	2-Nitrophenol ug/l	2-Picoline ug/l	3,3-Dichlorobenzidine ug/l	3-Methylcholanthrene ug/l	3-Nitroaniline ug/l
IRPMW49-020197-W	2/1/97	<1	<0.4	<0.8	<0.5	<1.7	<0.6	<3.8
IRPMW49-042697-W	4/26/97	<2.8 <sup>UJ</sup>	<1.4	<1.3	<1.9	<2.1	<1.7	<1.3
IRPMW49A-072397-W	7/23/97	<1	<0.4	<0.8	<0.5	<1.7	<0.6	<3.8
IRPMW49B-072397-W	7/23/97	<1	<0.4	<0.8	<0.5	<1.7	<0.6	<3.8
IRPMW49-101597-W	10/15/97	<1 <sup>UJ</sup>	<0.4	<0.8	<0.5	<1.7	NA	<3.8
IRPMW49-030898-W	3/8/98	<2.1	<1.5	<1.3	<1.3	<2.7	NA	<1.8
IRPMW49-060498-W	6/4/98	<1.3	<0.86	<0.98	<1.2	<0.6	NA	<1.2
IRPMW49-090398-W	9/3/98	<20.8 <sup>UJ</sup>	<13.6	<15.6	<19.2	<8	NA	<19.2
IRPMW49-120298-W	12/2/98	<0.82	<1.3	<1.3	<0.88	<2.4	NA	<1.3
IRPMW49-021799-W	2/17/99	<5.7	<7.9	<1.4	<1.1	<6.4	NA	<8.5
IRPMW49-052099-W	5/20/99	<4.7	<6.8	<1.3	<1.5	<5	NA	<6.3
IRPMW49-081299-W	8/12/99	<5.7 <sup>UJ</sup>	<7.9	<1.4	<1.1	<6.4	NA	<8.5
IRPMW49-111799-W	11/17/99	<4.7	<6.8	<1.3	<1.5	<5	NA	<6.3
Analyses		13	13	13	13	13	4	13
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level			2.2			0.15		
HWAD_-_GW_Action_Level Hits				0		0		

Semivolatile Organic Compounds

Sample ID	Sample Date	3/4-Methylphenol (m/p-Cresol)							
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW49-020197-W	2/1/97	NA	<2.4	<0.7	<0.6	<0.6	<0.7	<0.7	<0.7
IRPMW49-042697-W	4/26/97	<4.2	<2.3	<1.4	<1.6	<1.7	<1.1	<1.2	
IRPMW49A-072397-W	7/23/97	<1	<2.4	<0.7	<0.6	<0.6	<0.7	<0.7	
IRPMW49B-072397-W	7/23/97	<1	<2.4	<0.7	<0.6	<0.6	<0.7	<0.7	
IRPMW49-101597-W	10/15/97	NA	<2.4	<0.7	<0.6	<0.6	<0.7	<0.7	
IRPMW49-030898-W	3/8/98	NA	<2.9	<1.5	<0.61	<1.6	<0.63	<1.3	
IRPMW49-060498-W	6/4/98	NA	<2.3	<1.6	<0.6	<1.2	<1.2	<0.79	
IRPMW49-090398-W	9/3/98	NA	<36.8	<25.6	<9.6	<19.2	<19.2	<12.8	
IRPMW49-120298-W	12/2/98	NA	<0.89	<1.6	<1.5	<1.3	<1.1	<1.2	
IRPMW49-021799-W	2/17/99	NA	<5.5	<1.5	<2.1	<1.3	<5.9	<1.6	
IRPMW49-052099-W	5/20/99	NA	<5.2	<0.67	<1.2	<1.4	<9.3	<1.4	
IRPMW49-081299-W	8/12/99	NA	<5.5	<1.5	<2.1	<1.3	<5.9	<1.6	
IRPMW49-111799-W	11/17/99	NA	<5.2	<0.67	<1.2	<1.4	<9.3	<1.4	
Analyses		3	13	13	13	13	13	13	
Detections		0	0	0	0	0	0	0	
Minimum Concentration		0	0	0	0	0	0	0	
Maximum Concentration		0	0	0	0	0	0	0	
HWAD_-_GW_Action_Level		180					150		
HWAD_-_GW_Action_Level Hits		0					0		

**Semivolatile Organic Compounds**

Sample ID	Sample Date	4-Methylphenol ug/l	4-Nitroaniline ug/l	4-Nitrophenol ug/l	7,12-Dimethylbenz(a)anthracene ug/l	a,a-Dimethylphenethylamine ug/l	Acenaphthene ug/l	Acenaphthylene ug/l
IRPMW49-020197-W	2/1/97	<1	<1.1	<3.2	<0.8	<2	<0.7	<0.6
IRPMW49-042697-W	4/26/97	NA	<1.7	<2.1	<4.6	<1.3 <sup>UJ</sup>	<1.8	<2.1
IRPMW49A-072397-W	7/23/97	NA	<1.1	<3.2	<0.8	<2 <sup>UJ</sup>	<0.7	<0.6
IRPMW49B-072397-W	7/23/97	NA	<1.1	<3.2	<0.8	<2 <sup>UJ</sup>	<0.7	<0.6
IRPMW49-101597-W	10/15/97	<1	<1.1	<3.2	<0.8	<2	<0.7	<0.6
IRPMW49-030898-W	3/8/98	<2.3	<2	<1.9	<2.7	<3.5	<1.6	<1.4
IRPMW49-060498-W	6/4/98	<2.5	<1	<1.6	<0.67	<4.2	<1.1	<1.1
IRPMW49-090398-W	9/3/98	<40	<16	<25.6	<10.8	<68	<16.8	<17.6
IRPMW49-120298-W	12/2/98	<2.7	<1.4	<2.2	<1.2	<2.7	<1.2	<1.2
IRPMW49-021799-W	2/17/99	<1.7	<5.7	<3.7	<2.1	<5.8	<1.6	<1.4
IRPMW49-052099-W	5/20/99	<1.7	<7.1	<3.6	<0.67	<1.3	<1.4	<1.5
IRPMW49-081299-W	8/12/99	<1.7	<5.7	<3.7	<2.1	<5.8	<1.6	<1.4
IRPMW49-111799-W	11/17/99	<1.7	<7.1	<3.6	<0.67	<1.3	<1.4	<1.5
Analyses		10	13	13	13	13	13	13
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		180					370	
HWAD_-_GW_Action_Level Hits		0					0	

**Semivolatile Organic Compounds**

Sample ID	Sample Date	Acetophenone ug/l	Aniline ug/l	Anthracene ug/l	Benzidine ug/l	Benzo(a)anthracene ug/l	Benzo(a)pyrene ug/l	Benzo(b)fluoranthene ug/l
IRPMW49-020197-W	2/1/97	<0.5	<1.1	<0.5	<1.7 <sup>UJ</sup>	<0.8	<0.7	<0.5
IRPMW49-042697-W	4/26/97	<1.2	<1.1	<2.1	<1.4 <sup>UJ</sup>	<1.9	<1.5	<1.8
IRPMW49A-072397-W	7/23/97	<0.5	<1.1	<0.5	<1.7 <sup>UJ</sup>	<0.8	<0.7	<0.5
IRPMW49B-072397-W	7/23/97	<0.5	<1.1	<0.5	<1.7 <sup>UJ</sup>	<0.8	<0.7	<0.5
IRPMW49-101597-W	10/15/97	<0.5	<1.1	<0.5	<1.7 <sup>UJ</sup>	<0.8	<0.7	<0.5
IRPMW49-030898-W	3/8/98	<1.3	<1.5	<0.8	<2.1	<0.6	<2.5	<0.69
IRPMW49-060498-W	6/4/98	<0.99	<1.5	<1.5	<1.8	<0.69	<2.2	<1.9
IRPMW49-090398-W	9/3/98	<16	<24	<24	<28.8	<11.2	<35.2	<30.4
IRPMW49-120298-W	12/2/98	<1.4	<0.95	<1.4	<0.47	<3	<3.1	<2.7
IRPMW49-021799-W	2/17/99	<0.88	<0.78	<1.4	<3.8	<1.8	<2	<1.8
IRPMW49-052099-W	5/20/99	<1.5	<2	<1.1	<3.8	<1.1	<2.2	<1
IRPMW49-081299-W	8/12/99	<0.88	<0.78	<1.4	<3.8	<1.8	<2	<1.8
IRPMW49-111799-W	11/17/99	<1.5	<2	<1.1	<3.8	<1.1	<1.2	<1
Analyses		13	13	13	13	13	13	13
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.042	12	1800	0.00029	0.1	0.2	0.2
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	0

**Semivolatile Organic Compounds**

Sample ID	Sample Date	Benzo(g,h,i)perylene ug/l	Benzo(k)fluoranthene ug/l	Benzoic acid ug/l	Benzyl alcohol ug/l	bis(2-Chloroethoxy) methane ug/l	bis(2-Chloroisopropyl) ether ug/l	bis(2-Chloroisopropyl)-ether ug/l
IRPMW49-020197-W	2/1/97	<0.8	<0.9	<3.2 <sup>UJ</sup>	<0.5	<0.8	<0.7	<1.8 <sup>UJ</sup>
IRPMW49-042697-W	4/26/97	<1.5	<2.4	<3 <sup>UJ</sup>	<1.1	<1.4	<1.2	<2.3
IRPMW49A-072397-W	7/23/97	<0.8	<0.9	<3.2 <sup>UJ</sup>	<0.5	<0.8	<0.7	<1.8
IRPMW49B-072397-W	7/23/97	<0.8	<0.9	<3.2 <sup>UJ</sup>	<0.5	<0.8	<0.7	<1.8
IRPMW49-101597-W	10/15/97	<0.8	<0.9	<3.2	<0.5	<0.8	<0.7	<1.8
IRPMW49-030898-W	3/8/98	<2.6	<0.69	<2.7 <sup>UJ</sup>	<1	<1.6	<1.9	<2.3
IRPMW49-060498-W	6/4/98	<0.57	<0.81	<3.2	<1.5	<1.2	<1.1	<2.3
IRPMW49-090398-W	9/3/98	<9.2	<12.8	<52	<24	<19.2	<17.6	<36.8
IRPMW49-120298-W	12/2/98	<4.3	<3.3	<1	<1.3	<1.2	<1.2	<1
IRPMW49-021799-W	2/17/99	<1.6	<2.3	<3.8	<0.53	<1.1	<2.4	<1.3
IRPMW49-052099-W	5/20/99	<1.5	<1.3	<3.6	<1.5	<1.5	<1.4	<1.4
IRPMW49-081299-W	8/12/99	<1.6	<2.3	<3.8	<0.53	<1.1	<2.4	<1.3
IRPMW49-111799-W	11/17/99	<1.5	<1.3	<3.6	<1.5	<1.5	<1.4	<1.4
Analyses		13	13	13	13	13	13	13
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level			150000	11000		0.0098	0.27	
HWAD_-_GW_Action_Level Hits			0	0		0	0	

Semivolatile Organic Compounds

Sample ID	Sample Date	bis(2-Ethyhexyl)-phthalate		Butyl benzyl phthalate		Chrysene		Di-n-Butyl-phthalate		Di-n-octyl phthalate		Dibenz(a,h)anthracene		Dibenz(a,i)acridine		Dibenzofuran	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW49-020197-W	2/1/97	<2.4	<0.7	<0.6	<1.3	<0.7	<0.7	<0.7	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
IRPMW49-042697-W	4/26/97	5 <sup>J</sup>	<2.3	<1.1	2 <sup>J</sup>	<1.3	<1.3	<1.3	<1.4	<1.2	<2.3	<1.4	<1.2	<1.2	<1.2	<1.2	<2.3
IRPMW49A-072397-W	7/23/97	32 <sup>J</sup>	<0.7	<0.6	<1.3	<0.7	<0.7	<0.7	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
IRPMW49B-072397-W	7/23/97	18 <sup>J</sup>	2 <sup>J</sup>	<0.6	<1.3	<0.7	<0.7	<0.7	<0.7	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
IRPMW49-101597-W	10/15/97	<2.4	10 <sup>J</sup>	<0.6	<1.3	<0.7	<0.7	<0.7	<0.7	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
IRPMW49-030898-W	3/8/98	6 <sup>J</sup>	10	<0.5	1 <sup>J</sup>	<2.8	<2.8	<2.8	<2.6	<2.4	<1.5	<2.6	<2.4	<2.4	<2.4	<1.5	<1.5
IRPMW49-060498-W	6/4/98	<2.6	9 <sup>J</sup>	<0.7	<2.5	<2.6	<2.6	<2.6	<2.1	<2	<0.93	<2.1	<2	<2	<2	<0.93	<0.93
IRPMW49-090398-W	9/3/98	270	17 <sup>J</sup>	<11.2	<40	<40	<40	<33.6	<32	<14.8	<33.6	<32	<14.8	<14.8	<14.8	<14.8	<14.8
IRPMW49-120298-W	12/2/98	<3.5	11	<3.2	<2.7	<2.7	<2.7	<4.3	<1.9	<1.3	<1.3	<1.9	<1.9	<1.9	<1.9	<1.3	<1.3
IRPMW49-021799-W	2/17/99	<2.8	10	<1.6	<1.8	<3.1	<3.1	<1.6	<1.5	<1.5	<1.5	<1.6	<1.5	<1.5	<1.5	<1.5	<1.5
IRPMW49-052099-W	5/20/99	1 <sup>J</sup>	7 <sup>J</sup>	<1.3	<0.97	<1.4	<1.4	<1.3	<1.4	<1.4	<1.6	<1.3	<1.4	<1.6	<1.6	<1.6	<1.6
IRPMW49-081299-W	8/12/99	<2.8	<2.3	<1.6	<1.8	<3.1	<3.1	<1.6	<1.5	<1.5	<1.5	<1.6	<1.5	<1.5	<1.5	<1.5	<1.5
IRPMW49-111799-W	11/17/99	<1.1	12	<1.3	<0.97	<1.4	<1.4	<1.3	<1.4	<1.4	<1.6	<1.3	<1.4	<1.4	<1.4	<1.6	<1.6
Analyses		13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Detections		6	9	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration		1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration		270	17	0	2	0	0	0	0	0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		6	100	0.2	3700	730	0.0092									24	
HWAD_-_GW_Action_Level Hits		4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

**Semivolatile Organic Compounds**

Sample ID	Sample Date	Diethyl phthalate ug/l	Dimethyl phthalate ug/l	Diphenylamine ug/l	Ethyl methanesulfonate ug/l	Fluoranthene ug/l	Fluorene ug/l	Hexachlorobenzene ug/l
IRPMW49-020197-W	2/1/97	<0.7	<0.5	<0.7	<0.8	<0.7	<0.7	<0.6
IRPMW49-042697-W	4/26/97	<2	<1.2	<1.3	<1.2	<1.7	<2.1	<2.4
IRPMW49A-072397-W	7/23/97	<0.7	<0.5	<0.7	<0.8	<0.7	<0.7	<0.6
IRPMW49B-072397-W	7/23/97	<0.7	<0.5	<0.7	<0.8	<0.7	<0.7	<0.6
IRPMW49-101597-W	10/15/97	<0.7	<0.5	<0.7	<0.8	<0.7	<0.7	<0.6
IRPMW49-030898-W	3/8/98	<1.5	<1.5	<1.5	<0.8	<1.2	<1.2	<1.3
IRPMW49-060498-W	6/4/98	<0.85	<0.8	<0.89	<0.8	<0.72	<0.78	<0.65
IRPMW49-090398-W	9/3/98	<13.6	<12	<14.4	<12	<11.6	<12.4	<10.4
IRPMW49-120298-W	12/2/98	<1.5	<1.5	<1.6	<0.8	<2.4	<1.3	<1.4
IRPMW49-021799-W	2/17/99	<1.7	<1.5	<1.5	<1.3	<1.6	<1.6	<1.6
IRPMW49-052099-W	5/20/99	<1.3	<1.4	<1.1	<1.1	<1.1	<1.4	<1.1
IRPMW49-081299-W	8/12/99	<1.7	<1.5	<1.5	<1.3	<1.6	<1.6	<1.6
IRPMW49-111799-W	11/17/99	<1.3	<1.4	<1.1	<1.1	<1.1	<1.4	<1.1
<b>Analyses</b>		13	13	13	13	13	13	13
<b>Detections</b>		0	0	0	0	0	0	0
<b>Minimum Concentration</b>		0	0	0	0	0	0	0
<b>Maximum Concentration</b>		0	0	0	0	0	0	0
<b>HWAD_-_GW_Action_Level</b>		29000	370000	910		1500	240	1
<b>HWAD_-_GW_Action_Level Hits</b>		0	0	0		0	0	0

**Semivolatile Organic Compounds**

Sample ID	Sample Date	Hexachlorobutadiene ug/l	Hexachlorocyclopentadiene ug/l	Hexachloroethane ug/l	Indeno(1,2,3-c,d)pyrene ug/l	Isophorone ug/l	Methyl methanesulfonate ug/l	N-Nitroso-di-n-butylamine ug/l
IRPMW49-020197-W	2/1/97	<0.6	<8.2	<0.5	<0.7	<0.6	<0.5	<0.7
IRPMW49-042697-W	4/26/97	<3	<5.4	<1.7	<1.2	<1.2	<1.1	<1.1
IRPMW49A-072397-W	7/23/97	<0.6	<8.2	<0.5	<0.7	<0.6	<0.5	<0.7
IRPMW49B-072397-W	7/23/97	<0.6	<8.2	<0.5	<0.7	<0.6	<0.5	<0.7
IRPMW49-101597-W	10/15/97	<0.6	<8.2	<0.5	<0.7	<0.6	<0.5	<0.7
IRPMW49-030898-W	3/8/98	<1.4	<8.5	<1.5	<2.7	<1.6	<1.4	<1.4
IRPMW49-060498-W	6/4/98	<1.2	<4.8	<0.87	<2	<1.1	<1.1	<1.1
IRPMW49-090398-W	9/3/98	<19.2	<76	<14	<32	<17.6	<17.6	<17.6
IRPMW49-120298-W	12/2/98	<0.95	<4.3	<0.95	<3.3	<1.4	<1.2	<1.6
IRPMW49-021799-W	2/17/99	<2	<8	<1	<1.9	<1.3	<0.87	<1.3
IRPMW49-052099-W	5/20/99	<1.4	<2.4	<1.4	<1.4	<1.3	<1.2	<1.3
IRPMW49-081299-W	8/12/99	<2	<8	<1	<1.9	<1.3	<0.87	<1.3
IRPMW49-111799-W	11/17/99	<1.4	<2.4	<1.4	<1.4	<1.3	<1.2	<1.3
Analyses		13	13	13	13	13	13	13
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.86	50	4.8	0.092	71		0.002
HWAD_-_GW_Action_Level Hits		0	0	0	0	0		0

**Semivolatile Organic Compounds**

Sample ID	Sample Date	N-Nitroso-di-n-propylamine ug/l	N-Nitrosodimethylamine ug/l	N-Nitrosodiphenylamine ug/l	N-Nitrosopiperidine ug/l	Naphthalene ug/l	Nitrobenzene ug/l	p-Dimethylaminoazobenzene ug/l
IRPMW49-020197-W	2/1/97	<0.6	<0.6	<0.5	<0.6	<0.6	<0.8	<2.3
IRPMW49-042697-W	4/26/97	<1.6	<1.1	<2.6	<1.3	<1.1	<1.7	<1.1
IRPMW49A-072397-W	7/23/97	<0.6	<0.6	<0.5	<0.6	<0.6	<0.8	<2.3
IRPMW49B-072397-W	7/23/97	<0.6	<0.6	<0.5	<0.6	<0.6	<0.8	<2.3
IRPMW49-101597-W	10/15/97	<0.6	<0.6	<0.5	<0.6	<0.6	<0.8	<2.3
IRPMW49-030898-W	3/8/98	<1.3	<1.4	<1.6	<1.5	<1.4	<0.94	<0.65
IRPMW49-060498-W	6/4/98	<1.5	<0.89	<0.99	<0.87	<1.1	<0.93	<0.65
IRPMW49-090398-W	9/3/98	<24	<14.4	<16	<14	<17.6	<14.8	<10.4
IRPMW49-120298-W	12/2/98	<1.4	<1.6	<1.5	<1.2	<1.1	<1.2	<0.65
IRPMW49-021799-W	2/17/99	<1.9	<1.6	<7.1	<1.7	<1.5	<0.83	<1.1
IRPMW49-052099-W	5/20/99	<1.3	<1.2	<5.2	<1.2	<1.4	<0.79	<1.2
IRPMW49-081299-W	8/12/99	<1.9	<1.6	<7.1	<1.7	<1.5	<0.83	<1.1
IRPMW49-111799-W	11/17/99	<1.3	<1.2	<5.2	<1.2	<1.4	<0.79	<1.2
Analyses		13	13	13	13	13	13	13
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.0096	0.0013	14		6.2	3.4	
HWAD_-_GW_Action_Level Hits		0	0	0		0	0	

Semivolatile Organic Compounds

Sample ID	Sample Date	Pentachlorobenzene ug/l	Pentachloronitrobenzene ug/l	Pentachlorophenol ug/l	Phenacetin ug/l	Phenanthrene ug/l	Phenol ug/l	Pronamide ug/l
IRPMW49-020197-W	2/1/97	<1.8	NA	<1.8	<0.6	<0.6	<1.9	<2.6
IRPMW49-042697-W	4/26/97	<2.1	<1.4	<6.5	<1.4	<2.5	<1.4	<1.2
IRPMW49A-072397-W	7/23/97	<1.8	<0.5	<1.8	<0.6	<0.6	<1.9	<2.6
IRPMW49B-072397-W	7/23/97	<1.8	<0.5	<1.8	<0.6	<0.6	<1.9	<2.6
IRPMW49-101597-W	10/15/97	<1.8	NA	<1.8	<0.6	<0.6	<1.9	<2.6
IRPMW49-030898-W	3/8/98	<1.6	<3.3	<15	<0.99	<1	<1.7	<1.6
IRPMW49-060498-W	6/4/98	<0.94	<0.51	<11	<2.2	<1.1	<1.1	<0.57
IRPMW49-090398-W	9/3/98	<15.2	<8	<176	<35.2	<17.6	<17.6	<9.2
IRPMW49-120298-W	12/2/98	<1.2	<1.7	<9.1	<3.5	<1.6	<1.1	<2.9
IRPMW49-021799-W	2/17/99	<1.8	<1.3	<3.7 <sup>UJ</sup>	<0.84	<1.5	<0.55	<1.8
IRPMW49-052099-W	5/20/99	<1.5	<1	<11	<1.1	<1.2	<2.1	<1.3
IRPMW49-081299-W	8/12/99	<1.8	<1.3	<3.7	<0.84	<1.5	<0.55	<1.8
IRPMW49-111799-W	11/17/99	<1.5	<1	<11	<1.1	<1.2	<2.1	<1.3
Analyses		13	11	13	13	13	13	13
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		29	0.26	1		22000	2700	
HWAD_-_GW_Action_Level Hits		0	0	0		0	0	

## Semivolatile Organic Compounds

Sample ID	Sample Date	Pyrene ug/l
IRPMW49-020197-W	2/1/97	<0.6
IRPMW49-042697-W	4/26/97	<2.4
IRPMW49A-072397-W	7/23/97	<0.6
IRPMW49B-072397-W	7/23/97	<0.6
IRPMW49-101597-W	10/15/97	<0.6
IRPMW49-030898-W	3/8/98	<0.54
IRPMW49-060498-W	6/4/98	<0.57
IRPMW49-090398-W	9/3/98	<9.2
IRPMW49-120298-W	12/2/98	<2.1
IRPMW49-021799-W	2/17/99	<1.8
IRPMW49-052099-W	5/20/99	<1.1
IRPMW49-081299-W	8/12/99	<1.8
IRPMW49-111799-W	11/17/99	<1.1
Analyses		13
Detections		0
Minimum Concentration		0
Maximum Concentration		0
HWAD_-_GW_Action_Level		180
HWAD_-_GW_Action_Level Hits		0

## Explosives

Sample ID	Sample Date	1,3,5-Trinitrobenzene					
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW49-020197-W	2/1/97	<0.1	<0.058	<0.065	<0.018	NA	<0.09
IRPMW49-042697-W	4/26/97	<0.1	<0.058	<0.065	<0.018	NA	<0.09
IRPMW49A-072397-W	7/23/97	<0.1	<0.058	<0.065	<0.018	NA	<0.09
IRPMW49B-072397-W	7/23/97	<0.1	<0.058	<0.065	<0.018	NA	<0.09
IRPMW49-101597-W	10/15/97	<0.1	<0.061	<0.094	<0.02	NA	<0.066
IRPMW49-030898-W	3/8/98	<0.093	<0.09	<0.069	<0.061	NA	<0.12
IRPMW49-060498-W	6/4/98	<0.093	<0.09	<0.069	<0.061	NA	<0.12
IRPMW49-090398-W	9/3/98	<0.093	<0.09	<0.069	<0.061	NA	<0.12
IRPMW49-120298-W	12/2/98	<0.093	<0.09	<0.069	<0.061	NA	<0.12
IRPMW49-021799-W	2/17/99	<0.22	<0.22	<0.13	<0.13	<0.05	<0.16
IRPMW49-052099-W	5/20/99	<0.22	<0.22	<0.13	<0.13	<0.05	<0.16
IRPMW49-081299-W	8/12/99	<0.22	<0.22	<0.13	<0.13	NA	<0.16
IRPMW49-111799-W	11/17/99	<0.22	<0.22	<0.13	<0.13	NA	<0.16
Analyses		13	13	13	13	2	13
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level		1100	3.7	2.2	73		37
HWAD_-_GW_Action_Level Hits		0	0	0	0		0

**Explosives**

Sample ID	Sample Date						
		2-Amino-4,6-dinitrotoluene ug/l	2-Nitrotoluene ug/l	3-Nitrotoluene ug/l	4-Amino-2,6-dinitrotoluene ug/l	4-Nitrotoluene ug/l	HMX ug/l
IRPMW49-020197-W	2/1/97	<0.031	<0.13	<0.11	<0.035	<0.13	<0.17
IRPMW49-042697-W	4/26/97	<0.031	<0.13	<0.11	<0.035	<0.13	<0.17
IRPMW49A-072397-W	7/23/97	<0.031	<0.13	<0.11	<0.035	<0.13	<0.17
IRPMW49B-072397-W	7/23/97	<0.031	<0.13	<0.11	<0.035	<0.13	<0.17
IRPMW49-101597-W	10/15/97	<0.022	<0.14	<0.11	<0.022	<0.13	<0.15
IRPMW49-030898-W	3/8/98	<0.14	<0.074	<0.16	<0.13	<0.074	<0.11
IRPMW49-060498-W	6/4/98	<0.14	NA	<0.16	<0.13	NA	<0.11
IRPMW49-090398-W	9/3/98	NA	NA	<0.16	<0.13	NA	<0.11
IRPMW49-120298-W	12/2/98	NA	NA	<0.16	<0.13	NA	<0.11
IRPMW49-021799-W	2/17/99	<0.11	NA	<0.063	<0.13	NA	<0.25
IRPMW49-052099-W	5/20/99	<0.11	NA	<0.063	<0.13	NA	<0.25
IRPMW49-081299-W	8/12/99	<0.11	<0.05	<0.063	<0.13	<0.05	<0.25
IRPMW49-111799-W	11/17/99	<0.11	<0.05	<0.063	<0.13	<0.05	<0.25
Analyses		11	8	13	13	8	13
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.099		370	0.099	370	1800
HWAD_-_GW_Action_Level Hits		0		0	0	0	0

**Explosives**

Sample ID	Sample Date	Nitrobenzene		Picric Acid ug/l	RDX ug/l	Tetryl ug/l
		ug/l	ug/l			
IRPMW49-020197-W	2/1/97	<0.073	<7.1	<0.13	0.3 <sup>J</sup>	
IRPMW49-042697-W	4/26/97	<0.073	<7.1	<0.13	<0.066	
IRPMW49A-072397-W	7/23/97	<0.11	<7.1	<0.13	<0.13	
IRPMW49B-072397-W	7/23/97	<0.11	<7.1	<0.13	<0.13	
IRPMW49-101597-W	10/15/97	<0.11	<0.3	2 <sup>J</sup>	<0.13	
IRPMW49-030898-W	3/8/98	<0.11	<0.3	<0.078	<0.065	
IRPMW49-060498-W	6/4/98	<0.11	<0.3	<0.078	<0.065	
IRPMW49-090398-W	9/3/98	<0.11	<0.3	<0.078	<0.065	
IRPMW49-120298-W	12/2/98	<0.11	NA	<0.078	<0.065	
IRPMW49-021799-W	2/17/99	<0.26	<0.24	<0.29	<0.12	
IRPMW49-052099-W	5/20/99	<0.26	<0.24	<0.29	<0.12	
IRPMW49-081299-W	8/12/99	<0.26	<0.24	<0.29	<0.12	
IRPMW49-111799-W	11/17/99	<0.26	<0.24	<0.29	<0.12	
Analyses		13	12	13	13	
Detections		0	0	1	1	
Minimum Concentration		0	0	2	0.3	
Maximum Concentration		0	0	2	0.3	
HWAD_-_GW_Action_Level		3.4	1	0.61		
HWAD_-_GW_Action_Level Hits		0	0	1		

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### Monitoring Well Evaluation Checklist for Well No. IRPMW50

<b>SWMU / Area</b>	49 Group WT
<b>Aquifer</b>	
<b>Well Condition</b>	
Good	Yes
Describe Problems	None
<b>Purpose of Well</b>	
Primary	Downdgradient of SWMUs I09/10 and I11
Secondary	Regional groundwater data
<b>Retain for Chemical Monitoring (list compounds)</b>	VOCs

**Proposed Sample Frequency** Quarterly

### Analytical Results

Explosive	Sampling Events	Date First Sampled	Date Last Sampled	Analytes	Detections	Highest Concentration	HWAD GW AL	Exceeds Standard
RDX	12	2/1/97	11/17/99	12	1	--	--	Yes
VOC	12	2/1/97	11/17/99	12	21	--	0.61	1
1,2-DCA				3	0.6	5	5	0
MeCl				5	1	5	0	
PCE				1	0.5	5	5	0
TCE				12	33	5	12	
SVOC	12	2/1/97	11/17/99	12	11	--	--	Yes
Bis(2-ethylhexyl)phthalate				2	6	6	2	
Butyl benzyl phthalate				9	5	100	0	
<b>Nitrogen Compounds</b>	<b>4</b>	<b>2/1/97</b>	<b>11/17/99</b>	<b>4</b>	<b>2</b>	<b>--</b>	<b>--</b>	<b>No</b>
Ammonia as Nitrogen				1	0.1	NE	0	
Total Kjeldahl Nitrogen				1	0.2	NE	0	

ND = Non-detect  
NE = Not established

Water Characteristics

Sample ID	Sample Date	Ammonia as Nitrogen mg/l	Calcium, Total ug/l	Iron, Total ug/l	Kjeldahl Nitrogen, Total mg/l	Magnesium, Total ug/l	Potassium, Total ug/l	Sodium, Total ug/l
IRPMW50-020197-W	2/1/97	<0.06	90000	69.1	<0.1	13800	8750	192000
IRPMW50-042697-W	4/26/97	<0.06	91700	19.2 <sup>J</sup>	<0.1	13700	11300	192000
IRPMW50-072397-W	7/23/97	NA	NA	NA	NA	NA	NA	NA
IRPMW50-101597-W	10/15/97	NA	NA	NA	NA	NA	NA	NA
IRPMW50-030898-W	3/8/98	<0.07	92700	8.9 <sup>J</sup>	<0.1	13700	10900 <sup>E</sup>	208000
IRPMW50-060498-W	6/4/98	NA	NA	NA	NA	NA	NA	NA
IRPMW50-090398-W	9/3/98	NA	NA	NA	NA	NA	NA	NA
IRPMW50-120298-W	12/2/98	NA	NA	NA	NA	NA	NA	NA
IRPMW50-021799-W	2/17/99	0.1 <sup>J</sup>	90000 <sup>J</sup>	50.1 <sup>J</sup>	0.2 <sup>J</sup>	12900 <sup>J</sup>	11600 <sup>J</sup>	198000 <sup>J</sup>
IRPMW50-052099-W	5/20/99	NA	NA	NA	NA	NA	NA	NA
IRPMW50-081299-W	8/12/99	NA	NA	NA	NA	NA	NA	NA
IRPMW50-111799-W	11/17/99	NA	NA	NA	NA	NA	NA	NA
Analyses		4	4	4	4	4	4	4
Detections		1	4	4	1	4	4	4
Minimum Concentration		0.1	90000	8.9	0.2	12900	8750	192000
Maximum Concentration		0.1	92700	69.1	0.2	13800	11600	208000
HWAD_-_GW_Action_Level				11000				
HWAD_-_GW_Action_Level Hits				0				

Water Characteristics

Sample ID	Sample Date	Solids, Total Dissolved mg/l
IRPMW50-020197-W	2/1/97	1020
IRPMW50-042697-W	4/26/97	1010
IRPMW50-072397-W	7/23/97	NA
IRPMW50-101597-W	10/15/97	NA
IRPMW50-030898-W	3/8/98	NA
IRPMW50-060498-W	6/4/98	NA
IRPMW50-090398-W	9/3/98	NA
IRPMW50-120298-W	12/2/98	NA
IRPMW50-021799-W	2/17/99	NA
IRPMW50-052099-W	5/20/99	NA
IRPMW50-081299-W	8/12/99	NA
IRPMW50-111799-W	11/17/99	NA
Analyses		2
Detections		2
Minimum Concentration		1010
Maximum Concentration		1020
HWAD_-_GW_Action_Level		
HWAD_-_GW_Action_Level Hits		

## Nitrogen Compounds

Sample ID	Sample Date	Ammonia as Nitrogen mg/l	Kjeldahl Nitrogen, Total mg/l
IRPMW50-020197-W	2/1/97	<0.06	<0.1
IRPMW50-042697-W	4/26/97	<0.06	<0.1
IRPMW50-072397-W	7/23/97	NA	NA
IRPMW50-101597-W	10/15/97	NA	NA
IRPMW50-030898-W	3/8/98	<0.07	<0.1
IRPMW50-060498-W	6/4/98	NA	NA
IRPMW50-090398-W	9/3/98	NA	NA
IRPMW50-120298-W	12/2/98	NA	NA
IRPMW50-021799-W	2/17/99	0.1	0.2
IRPMW50-052099-W	5/20/99	NA	NA
IRPMW50-081299-W	8/12/99	NA	NA
IRPMW50-111799-W	11/17/99	NA	NA
Analyses		4	4
Detections		1	1
Minimum Concentration		0.1	0.2
Maximum Concentration		0.1	0.2
HWAD_-_GW_Action_Level			
HWAD_-_GW_Action_Level Hits			

Total Metals

Sample ID	Sample Date	Arsenic, Total		Barium, Total		Beryllium, Total		Cadmium, Total		Chromium, Total		Lead, Total		Mercury, Total		Selenium, Total	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
IRPMW50-020197-W	2/1/97	2.2	J	NA	<0.2	<0.1	3.7	J	<0.6	<0.15	2.6	J					
IRPMW50-042697-W	4/26/97	3.3	J	NA	<0.2	<0.1	4	J	0.7	J	<0.15	<2.3					
IRPMW50-072397-W	7/23/97	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA					
IRPMW50-101597-W	10/15/97	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA					
IRPMW50-030898-W	3/8/98	4.2		49.1	NA	<0.51	<1		<0.9	<0.16	2.2						
IRPMW50-060498-W	6/4/98	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA					
IRPMW50-090398-W	9/3/98	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA					
IRPMW50-120298-W	12/2/98	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA					
IRPMW50-021799-W	2/17/99	2.9	J	32.6	J	NA	<0.61	4.1	J	<1.1	0.44	J	3.1	J			
IRPMW50-052099-W	5/20/99	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA					
IRPMW50-081299-W	8/12/99	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA					
IRPMW50-111799-W	11/17/99	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA					
Analyses		4		2		2		4		4		4		4		4	
Detections		4		2		0		0		3		1		1		3	
Minimum Concentration		2.2		32.6		0		0		3.7		0.7		0.44		2.2	
Maximum Concentration		4.2		49.1		0		0		4.1		0.7		0.44		3.1	
HWAD_-_GW_Action_Level		50		2000		4		5		100		15		2		180	
HWAD_-_GW_Action_Level Hits		0		0		0		0		0		0		0		0	

Total Metals

Sample ID	Sample Date	Silver, Total ug/l
IRPMW50-020197-W	2/1/97	<1.1
IRPMW50-042697-W	4/26/97	<1.1
IRPMW50-072397-W	7/23/97	NA
IRPMW50-101597-W	10/15/97	NA
IRPMW50-030898-W	3/8/98	<1
IRPMW50-060498-W	6/4/98	NA
IRPMW50-090398-W	9/3/98	NA
IRPMW50-120298-W	12/2/98	NA
IRPMW50-021799-W	2/17/99	<0.9 <sup>UJ</sup>
IRPMW50-052099-W	5/20/99	NA
IRPMW50-081299-W	8/12/99	NA
IRPMW50-111799-W	11/17/99	NA
Analyses		4
Detections		0
Minimum Concentration		0
Maximum Concentration		0
HWAD_-_GW_Action_Level		180
HWAD_-_GW_Action_Level Hits		0

**Dissolved Metals**

Sample ID	Sample Date	Arsenic, Dissolved ug/l	Barium, Dissolved ug/l	Beryllium, Dissolved ug/l	Cadmium, Dissolved ug/l	Chromium, Dissolved ug/l	Lead, Dissolved ug/l	Mercury, Dissolved ug/l	Selenium, Dissolved ug/l
IRPMW50-020197-W	2/1/97	<1.2	NA	<0.2	<0.1	3 <sup>J</sup>	<0.6	<0.15	4 <sup>J</sup>
IRPMW50-042697-W	4/26/97	3.9 <sup>J</sup>	NA	<0.2	<0.1	3.2 <sup>J</sup>	1.5 <sup>J</sup>	<0.15	<2.3
IRPMW50-072397-W	7/23/97	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW50-101597-W	10/15/97	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW50-030898-W	3/8/98	6.3	48.3	NA	<0.51	<1	<0.9	<0.16	3.5
IRPMW50-060498-W	6/4/98	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW50-090398-W	9/3/98	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW50-120298-W	12/2/98	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW50-021799-W	2/17/99	1.5 <sup>J</sup>	35.3	NA	<0.61	3.2 <sup>J</sup>	<1.1	0.2 <sup>J</sup>	<1.9
IRPMW50-052099-W	5/20/99	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW50-081299-W	8/12/99	NA	NA	NA	NA	NA	NA	NA	NA
IRPMW50-111799-W	11/17/99	NA	NA	NA	NA	NA	NA	NA	NA
Analyses		4	2	2	4	4	4	4	4
Detections		3	2	0	0	3	1	1	2
Minimum Concentration		1.5	35.3	0	0	3	1.5	0.2	3.5
Maximum Concentration		6.3	48.3	0	0	3.2	1.5	0.2	4
HWAD_-_GW_Action_Level		50		4	5	100	15	2	180
HWAD_-_GW_Action_Level Hits		0		0	0	0	0	0	0

## Dissolved Metals

Sample ID	Sample Date	Silver, Dissolved ug/l
IRPMW50-020197-W	2/1/97	<1.1
IRPMW50-042697-W	4/26/97	<1.1
IRPMW50-072397-W	7/23/97	NA
IRPMW50-101597-W	10/15/97	NA
IRPMW50-030898-W	3/8/98	<1
IRPMW50-060498-W	6/4/98	NA
IRPMW50-090398-W	9/3/98	NA
IRPMW50-120298-W	12/2/98	NA
IRPMW50-021799-W	2/17/99	<0.9
IRPMW50-052099-W	5/20/99	NA
IRPMW50-081299-W	8/12/99	NA
IRPMW50-111799-W	11/17/99	NA
Analyses		4
Detections		0
Minimum Concentration		0
Maximum Concentration		0
HWAD_--GW_Action_Level		180
HWAD_--GW_Action_Level Hits		0

Pesticides

Sample ID	Sample Date	2,4,5-T ug/l	2,4,5-TP (Silvex) ug/l	2,4-D ug/l	2,4-DB ug/l	4,4-DDD ug/l	4,4-DDE ug/l
IRPMW50-020197-W	2/1/97	<0.039	<0.009	<0.009	<0.014	<0.003	<0.002
IRPMW50-042697-W	4/26/97	<0.039	<0.009	<0.009	<0.014	<0.032	<0.022
IRPMW50-072397-W	7/23/97	NA	NA	NA	NA	NA	NA
IRPMW50-101597-W	10/15/97	NA	NA	NA	NA	NA	NA
IRPMW50-030898-W	3/8/98	NA	NA	NA	NA	NA	NA
IRPMW50-060498-W	6/4/98	NA	NA	NA	NA	NA	NA
IRPMW50-090398-W	9/3/98	NA	NA	NA	NA	NA	NA
IRPMW50-120298-W	12/2/98	NA	NA	NA	NA	NA	NA
IRPMW50-021799-W	2/17/99	NA	NA	NA	NA	NA	NA
IRPMW50-052099-W	5/20/99	NA	NA	NA	NA	NA	NA
IRPMW50-081299-W	8/12/99	NA	NA	NA	NA	NA	NA
IRPMW50-111799-W	11/17/99	NA	NA	NA	NA	NA	NA
Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level		370	50	70	290	0.28	0.2
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0

Pesticides

Sample ID	Sample Date	4,4-DDT ug/l	Aldrin ug/l	alpha-BHC ug/l	beta-BHC ug/l	Chlordane ug/l	Dalapon ug/l
IRPMW50-020197-W	2/1/97	<0.003	<0.003	<0.002	<0.001	<0.027	<0.029
IRPMW50-042697-W	4/26/97	<0.032	<0.026	<0.018	<0.013	<0.05	<0.029
IRPMW50-072397-W	7/23/97	NA	NA	NA	NA	NA	NA
IRPMW50-101597-W	10/15/97	NA	NA	NA	NA	NA	NA
IRPMW50-030898-W	3/8/98	NA	NA	NA	NA	NA	NA
IRPMW50-060498-W	6/4/98	NA	NA	NA	NA	NA	NA
IRPMW50-090398-W	9/3/98	NA	NA	NA	NA	NA	NA
IRPMW50-120298-W	12/2/98	NA	NA	NA	NA	NA	NA
IRPMW50-021799-W	2/17/99	NA	NA	NA	NA	NA	NA
IRPMW50-052099-W	5/20/99	NA	NA	NA	NA	NA	NA
IRPMW50-081299-W	8/12/99	NA	NA	NA	NA	NA	NA
IRPMW50-111799-W	11/17/99	NA	NA	NA	NA	NA	NA
Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.2	0.004	0.011	0.037	2	200
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0

Pesticides

Sample ID	Sample Date	delta-BHC ug/l	Dicamba ug/l	Dichlorprop ug/l	Dieldrin ug/l	Dinoseb ug/l	Endosulfan I ug/l
IRPMW50-020197-W	2/1/97	<0.001	<0.008	<0.01	<0.003	<0.027	<0.004
IRPMW50-042697-W	4/26/97	<0.011	<0.008	<0.01	<0.027	<0.027	<0.038
IRPMW50-072397-W	7/23/97	NA	NA	NA	NA	NA	NA
IRPMW50-101597-W	10/15/97	NA	NA	NA	NA	NA	NA
IRPMW50-030898-W	3/8/98	NA	NA	NA	NA	NA	NA
IRPMW50-060498-W	6/4/98	NA	NA	NA	NA	NA	NA
IRPMW50-090398-W	9/3/98	NA	NA	NA	NA	NA	NA
IRPMW50-120298-W	12/2/98	NA	NA	NA	NA	NA	NA
IRPMW50-021799-W	2/17/99	NA	NA	NA	NA	NA	NA
IRPMW50-052099-W	5/20/99	NA	NA	NA	NA	NA	NA
IRPMW50-081299-W	8/12/99	NA	NA	NA	NA	NA	NA
IRPMW50-111799-W	11/17/99	NA	NA	NA	NA	NA	NA
Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level			1100	0.0042	7	220	
HWAD_-_GW_Action_Level Hits			0	0	0	0	0

**Pesticides**

Sample ID	Sample Date	Endosulfan II ug/l	Endosulfan sulfate ug/l	Endrin ug/l	Endrin aldehyde ug/l	Endrin ketone ug/l	gamma-BHC (Lindane) ug/l
IRPMW50-020197-W	2/1/97	<0.003	<0.014	<0.0008	<0.003	<0.002	<0.002
IRPMW50-042697-W	4/26/97	<0.025	<0.14	<0.008	<0.028	<0.02	<0.017
IRPMW50-072397-W	7/23/97	NA	NA	NA	NA	NA	NA
IRPMW50-101597-W	10/15/97	NA	NA	NA	NA	NA	NA
IRPMW50-030898-W	3/8/98	NA	NA	NA	NA	NA	NA
IRPMW50-060498-W	6/4/98	NA	NA	NA	NA	NA	NA
IRPMW50-090398-W	9/3/98	NA	NA	NA	NA	NA	NA
IRPMW50-120298-W	12/2/98	NA	NA	NA	NA	NA	NA
IRPMW50-021799-W	2/17/99	NA	NA	NA	NA	NA	NA
IRPMW50-052099-W	5/20/99	NA	NA	NA	NA	NA	NA
IRPMW50-081299-W	8/12/99	NA	NA	NA	NA	NA	NA
IRPMW50-111799-W	11/17/99	NA	NA	NA	NA	NA	NA
Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level				2			0.2
HWAD_-_GW_Action_Level Hits				0			0

Pesticides

Sample ID	Sample Date	Heptachlor ug/l	Heptachlor epoxide ug/l	MCPA ug/l	MCPP ug/l	Methoxychlor ug/l	Toxaphene ug/l
IRPMW50-020197-W	2/1/97	<0.002	<0.0009	<1	<1	<0.003	<0.029
IRPMW50-042697-W	4/26/97	<0.024	<0.009	<1 <sup>UJ</sup>	<1 <sup>UJ</sup>	<0.026	<0.29
IRPMW50-072397-W	7/23/97	NA	NA	NA	NA	NA	NA
IRPMW50-101597-W	10/15/97	NA	NA	NA	NA	NA	NA
IRPMW50-030898-W	3/8/98	NA	NA	NA	NA	NA	NA
IRPMW50-060498-W	6/4/98	NA	NA	NA	NA	NA	NA
IRPMW50-090398-W	9/3/98	NA	NA	NA	NA	NA	NA
IRPMW50-120298-W	12/2/98	NA	NA	NA	NA	NA	NA
IRPMW50-021799-W	2/17/99	NA	NA	NA	NA	NA	NA
IRPMW50-052099-W	5/20/99	NA	NA	NA	NA	NA	NA
IRPMW50-081299-W	8/12/99	NA	NA	NA	NA	NA	NA
IRPMW50-111799-W	11/17/99	NA	NA	NA	NA	NA	NA
Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.4	0.2	18	37	40	3
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0

**Volatile Organic Compounds**

Sample ID	Sample Date	1,1,1,2-Tetrachloroethane						
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW50-020197-W	2/1/97	<0.2	<0.2	<0.2	<0.2	<0.3	<0.3	<0.3
IRPMW50-042697-W	4/26/97	<0.1	<0.1	<0.2	<0.2	<0.1	<0.7	<0.1
IRPMW50-072397-W	7/23/97	<0.2	<0.1	<0.2	<0.2	<0.3	<0.5	<0.2
IRPMW50-101597-W	10/15/97	<0.2	<0.1	<0.2	<0.2	<0.3	<0.5	<0.2
IRPMW50-030898-W	3/8/98	<0.35	<0.36	<0.38	<0.36	<0.22	<0.34	<0.28
IRPMW50-060498-W	6/4/98	<0.17	<0.24	<0.17	<0.12	<0.17	<0.22	<0.24
IRPMW50-090398-W	9/3/98	<0.23	<0.23	<0.26	<0.27 <sup>UJ</sup>	<0.18	<0.28	<0.29
IRPMW50-120298-W	12/2/98	<0.17	<0.24	<0.17	<0.12	<0.17	<0.22	<0.24
IRPMW50-021799-W	2/17/99	<0.21	<0.14	<0.34	<0.22	<0.22	<0.31	<0.33
IRPMW50-052099-W	5/20/99	<0.05	<0.06	<0.11	<0.06	<0.07	<0.06	<0.05
IRPMW50-081299-W	8/12/99	<0.3	<0.06	<0.13	<0.17	<0.09	<0.13	<0.12
IRPMW50-111799-W	11/17/99	<0.21	<0.14	<0.34	<0.22	<0.22	<0.31	<0.33
Analyses		12	12	12	12	12	12	12
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.43	200	0.055	5	810	7	
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	

**Volatile Organic Compounds**

Sample ID	Sample Date	1,2,3-Trichlorobenzene		1,2,3-Trichloropropane		1,2,4-Trichlorobenzene		1,2-Dibromoethane (EDB)		1,2-Dichlorobenzene		1,2-Dichloroethane	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
IRPMW50-020197-W	2/1/97	<0.4	<0.8	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.4	<0.4	<0.8	
IRPMW50-042697-W	4/26/97	<0.5	<0.2	<0.3	<0.1	<0.2	<0.3	<0.2	<0.2	<0.4	<0.4	<0.2	
IRPMW50-072397-W	7/23/97	<0.3	<0.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4	<0.4	<0.5	
IRPMW50-101597-W	10/15/97	<0.3	<0.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4	<0.4	<0.5	<0.5	
IRPMW50-030898-W	3/8/98	<0.3	<0.31	<0.3	<0.31	<0.31	<0.31	<0.31	<0.36	<0.36	<0.36	<0.36	
IRPMW50-060498-W	6/4/98	<0.26	<0.17 <sup>UJ</sup>	<0.34	<0.15	<0.18	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	
IRPMW50-090398-W	9/3/98	<0.15	<0.38	<0.29	<0.34	<0.34	<0.34	<0.27	<0.27	<0.21	<0.21	<0.21	
IRPMW50-120298-W	12/2/98	<0.26	<0.17 <sup>UJ</sup>	<0.34	<0.15	<0.18	<0.15	<0.15	<0.6 <sup>J</sup>	<0.15	<0.15	<0.6 <sup>J</sup>	
IRPMW50-021799-W	2/17/99	<0.28	<0.41	<0.33	<0.25	<0.17	<0.17	<0.25	<0.31	<0.25	<0.25	<0.31	
IRPMW50-052099-W	5/20/99	<0.16	<0.12	<0.09	<0.09	<0.08	<0.08	<0.07	<0.5 <sup>J</sup>	<0.07	<0.07	<0.5 <sup>J</sup>	
IRPMW50-081299-W	8/12/99	<0.2	<0.27	<0.09	<0.34	<0.1	<0.1	<0.24	<0.4 <sup>J</sup>	<0.24	<0.24	<0.4 <sup>J</sup>	
IRPMW50-111799-W	11/17/99	<0.28	<0.41	<0.33	<0.25	<0.17	<0.17	<0.25	<0.31	<0.25	<0.25	<0.31	
<b>Analyses</b>		12	12	12	12	12	12	12	12	12	12	12	
<b>Detections</b>		0	0	0	0	0	0	0	0	0	0	3	
<b>Minimum Concentration</b>		0	0	0	0	0	0	0	0	0	0	0.4	
<b>Maximum Concentration</b>		0	0	0	0	0	0	0	0	0	0	0.6	
<b>HWAD_-_GW_Action_Level</b>		0.0016	70	12	0.05	600	5						
<b>HWAD_-_GW_Action_Level Hits</b>		0	0	0	0	0	0						

**Volatile Organic Compounds**

Sample ID	Sample Date	VOC Concentrations (ug/l)							
		1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,4-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Chlorotoluene	
IRPMW50-020197-W	2/1/97	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
IRPMW50-042697-W	4/26/97	<0.1	<0.1	<0.2	<0.1	<0.2	<0.8 <sup>UJ</sup>	<0.2	
IRPMW50-072397-W	7/23/97	<0.2	<0.2	<0.4	<0.2	<0.3	<0.4	<0.2	
IRPMW50-101597-W	10/15/97	<0.2	<0.2	<0.4	<0.2	<0.3	<0.4	<0.2	
IRPMW50-030898-W	3/8/98	<0.22	<0.38	<0.38	<0.36	<0.3	<0.31	<0.3	
IRPMW50-060498-W	6/4/98	<0.17	<0.12	<0.24	<0.17	<0.17	<0.31	<0.36	
IRPMW50-090398-W	9/3/98	<0.32	<0.3	<0.38	<0.16	<0.44	<0.21	<0.29	
IRPMW50-120298-W	12/2/98	<0.17	<0.12	<0.24	<0.17	<0.17	<0.31	<0.36	
IRPMW50-021799-W	2/17/99	<0.22	<0.27	<0.27	<0.14	<0.28	<0.57	<0.28	
IRPMW50-052099-W	5/20/99	<0.07	<0.1	<0.07	<0.07	<0.09	<0.07 <sup>UJ</sup>	<0.11	
IRPMW50-081299-W	8/12/99	<0.14	<0.1	<0.08	<0.09	<0.12	<0.2	<0.14	
IRPMW50-111799-W	11/17/99	<0.22	<0.27	<0.27	<0.14	<0.28	<0.57	<0.28	
Analyses		12	12	12	12	12	12	12	
Detections		0	0	0	0	0	0	0	
Minimum Concentration		0	0	0	0	0	0	0	
Maximum Concentration		0	0	0	0	0	0	0	
HWAD_-_GW_Action_Level		5		17		75		120	
HWAD_-_GW_Action_Level Hits		0		0		0		0	

**Volatile Organic Compounds**

Sample ID	Sample Date	4-Chlorotoluene		4-Isopropyltoluene		Benzene		Bromobenzene		Bromochloromethane		Bromodichloromethane		Bromoform
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
IRPMW50-020197-W	2/1/97	<0.3	<0.2	<0.2	<0.3	<0.5	<0.2	<0.4	<0.2	<0.2	<0.1	<0.1	<0.2	<0.2
IRPMW50-042697-W	4/26/97	<0.2	<0.3	<0.2	<0.1	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
IRPMW50-072397-W	7/23/97	<0.2	<0.2	<0.2	<0.3	<0.4	<0.2	<0.4	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2
IRPMW50-101597-W	10/15/97	<0.2	<0.2	<0.2	<0.3	<0.4	<0.2	<0.4	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2
IRPMW50-030898-W	3/8/98	<0.4	<0.36	<0.36	<0.31	<0.47	<0.34	<0.35	<0.47	<0.15	<0.26	uj	<0.26	<0.26
IRPMW50-060498-W	6/4/98	<0.36	<0.15	<0.36	<0.15	<0.25	<0.15	<0.25	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15
IRPMW50-090398-W	9/3/98	<0.38	<0.38	<0.14	<0.32	<0.33	<0.29	<0.33	<0.29	<0.45	<0.45	<0.45	<0.45	<0.45
IRPMW50-120298-W	12/2/98	<0.36	<0.15	<0.36	<0.15	<0.25	<0.15	<0.25	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15
IRPMW50-021799-W	2/17/99	<0.37	<0.22	<0.33	<0.3	<0.4	<0.4	<0.4	<0.4	<0.18	<0.27	<0.27	<0.27	<0.27
IRPMW50-052099-W	5/20/99	<0.11	<0.1	<0.09	<0.07	<0.06	<0.06	<0.06	<0.06	<0.06	<0.08	<0.08	<0.08	<0.08
IRPMW50-081299-W	8/12/99	<0.21	<0.08	<0.1	<0.12	<0.26	<0.12	<0.26	<0.09	<0.2	<0.09	<0.09	<0.09	<0.09
IRPMW50-111799-W	11/17/99	<0.37	<0.22	<0.33	<0.3	<0.4	<0.18	<0.4	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
Analyses		12	12	12	12	12	12	12	12	12	12	12	12	12
Detections		0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level					5					100	100			
HWAD_-_GW_Action_Level Hits					0					0	0			

**Volatile Organic Compounds**

Sample ID	Sample Date	Bromomethane ug/l	Carbon tetrachloride ug/l	Chlorobenzene ug/l	Chloroethane ug/l	Chloroform ug/l	Chloromethane ug/l	cis-1,2-Dichloroethene ug/l
IRPMW50-020197-W	2/1/97	<0.2	<0.2	<0.3	<0.2	<0.2	<0.2	<0.2
IRPMW50-042697-W	4/26/97	<0.2 <sup>UJ</sup>	<0.1 <sup>UJ</sup>	<0.1	<0.2	<0.1	<0.2	<0.2
IRPMW50-072397-W	7/23/97	<0.1	<0.2	<0.2	<0.2	<0.2	<0.3	<0.2
IRPMW50-101597-W	10/15/97	<0.1	<0.2	<0.2	<0.2	<0.2	<0.3	<0.2
IRPMW50-030898-W	3/8/98	<0.96	<0.35	<0.26	<0.57	<0.38	<0.72	<0.28
IRPMW50-060498-W	6/4/98	<0.46	<0.24	<0.26	<0.22	<0.15	<0.3 <sup>UJ</sup>	<0.26
IRPMW50-090398-W	9/3/98	<0.45	<0.27	<0.23	<0.48	<0.22	<0.44	<0.3
IRPMW50-120298-W	12/2/98	<0.46	<0.24	<0.26	<0.22	<0.15	<0.3	<0.26
IRPMW50-021799-W	2/17/99	<1.3 <sup>UJ</sup>	<0.43 <sup>UJ</sup>	<0.23	<0.53 <sup>UJ</sup>	<0.24	<0.34	<0.26
IRPMW50-052099-W	5/20/99	<0.08	<0.06	<0.05	<0.07	<0.07	<0.34	<0.17
IRPMW50-081299-W	8/12/99	<0.39	<0.18	<0.14	<0.43	<0.1	<0.49	<0.1
IRPMW50-111799-W	11/17/99	<1.3	<0.43	<0.23	<0.53	<0.24	<0.34	<0.26
Analyses		12	12	12	12	12	12	12
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		8.7	5	100		100	1.5	70
HWAD_-_GW_Action_Level Hits		0	0	0		0	0	0

**Volatile Organic Compounds**

Sample ID	Sample Date	cis-1,3-Dichloropropene		Dibromochloromethane		Dibromopropane		Dibromomethane		Dichlorodifluoromethane		Ethylbenzene		Hexachlorobutadiene	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW50-020197-W	2/1/97	NA	<0.2	<0.9	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	<0.4				
IRPMW50-042697-W	4/26/97	<0.2	<0.1	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.2	<0.3				
IRPMW50-072397-W	7/23/97	<0.2	<0.2	<0.5 <sup>UJ</sup>	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2				
IRPMW50-101597-W	10/15/97	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2				
IRPMW50-030898-W	3/8/98	<0.22	<0.28	<0.63	<0.31	<0.47	<0.47	<0.36	<0.36						
IRPMW50-060498-W	6/4/98	<0.17	<0.17	<0.28 <sup>UJ</sup>	<0.17	<0.31	<0.31	<0.24	<0.24						
IRPMW50-090398-W	9/3/98	<0.19	<0.27	<0.45 <sup>UJ</sup>	<0.45	<0.43	<0.43	<0.23	<0.23						
IRPMW50-120298-W	12/2/98	<0.17	<0.17	<0.28	<0.17	<0.31	<0.31	<0.24	<0.24						
IRPMW50-021799-W	2/17/99	<0.32	<0.2	<0.2	<0.25	<0.41	<0.41	<0.34	<0.34						
IRPMW50-052099-W	5/20/99	<0.04	<0.07	<0.13	<0.06	<0.06	<0.06	<0.05	<0.05						
IRPMW50-081299-W	8/12/99	<0.11	<0.1	<2.1	<0.27	<0.32	<0.32	<0.03	<0.03						
IRPMW50-111799-W	11/17/99	<0.32	<0.2	<0.2	<0.25	<0.41	<0.41	<0.23	<0.23						
Analyses		11	12	12	12	12	12	12	12						
Detections		0	0	0	0	0	0	0	0						
Minimum Concentration		0	0	0	0	0	0	0	0						
Maximum Concentration		0	0	0	0	0	0	0	0						
HWAD_-_GW_Action_Level			100	0.2			390	700	0.86						
HWAD_-_GW_Action_Level Hits			0	0			0	0	0						

**Volatile Organic Compounds**

Sample ID	Sample Date	Isopropylbenzene ug/l	Methylene chloride ug/l	MTBE ug/l	n-Butylbenzene ug/l	n-Propylbenzene ug/l	Naphthalene ug/l	sec-Butylbenzene ug/l
IRPMW50-020197-W	2/1/97	<0.3	0.9 <sup>J</sup>	<0.5	<0.2	<0.3	<0.4	<0.2
IRPMW50-042697-W	4/26/97	<0.2	<0.7	<2.1	<0.3	<0.2	<0.8	<0.2
IRPMW50-072397-W	7/23/97	<0.3	<0.6	<0.4	<0.3	<0.2	<0.3	<0.2
IRPMW50-101597-W	10/15/97	<0.3	<0.6	<0.4	<0.3	<0.2	<0.3	<0.2
IRPMW50-030898-W	3/8/98	<0.36	<0.6	<0.49	<0.22	<0.3	<0.22	<0.4
IRPMW50-060498-W	6/4/98	<0.15	1 <sup>J</sup>	<0.18	<0.49	<0.22	<0.28	<0.22
IRPMW50-090398-W	9/3/98	<0.29	<0.45	<0.55	<0.26	<0.27	<0.44	<0.37
IRPMW50-120298-W	12/2/98	<0.15	1 <sup>J</sup>	<0.18	<0.49	<0.22	<0.28	<0.22
IRPMW50-021799-W	2/17/99	<0.24	<0.37	<0.41	<0.28	<0.2	<0.22	<0.2
IRPMW50-052099-W	5/20/99	<0.11	<0.06 <sup>UJ</sup>	<0.13	<0.09	<0.1	<0.12 <sup>UJ</sup>	<0.1
IRPMW50-081299-W	8/12/99	<0.09	1	<0.16	<0.31	<0.16	<0.13	<0.1
IRPMW50-111799-W	11/17/99	<0.24	1 <sup>J</sup>	<0.41	<0.28	<0.2	<0.22	<0.2
Analyses		12	12	12	12	12	12	12
Detections		0	5	0	0	0	0	0
Minimum Concentration		0	0.9	0	0	0	0	0
Maximum Concentration		0	1	0	0	0	0	0
HWAD_- GW_Action_Level		19	5	20			6.2	
HWAD_- GW_Action_Level Hits		0	0	0			0	

**Volatile Organic Compounds**

Sample ID	Sample Date	Styrene ug/l	tert-Butylbenzene ug/l	Tetrachloroethene ug/l	Toluene ug/l	trans-1,2-Dichloroethene ug/l	trans-1,3-Dichloropropene ug/l	Trichloroethene ug/l
IRPMW50-020197-W	2/1/97	<0.2	<0.2	<0.3	<0.3	<0.3	NA	32
IRPMW50-042697-W	4/26/97	<0.1	<0.3	<0.1	<0.1	<0.2	<0.2	26
IRPMW50-072397-W	7/23/97	<0.2	<0.2	<0.2	<0.3	<0.5	<0.3	28
IRPMW50-101597-W	10/15/97	<0.2	<0.2	<0.2	<0.3	<0.5	<0.3	33
IRPMW50-030898-W	3/8/98	<0.36	<0.3	<0.36	<0.97	<0.35	<0.36	30
IRPMW50-060498-W	6/4/98	<0.28	<0.24	<0.35	<0.24	<0.25	<0.15	31
IRPMW50-090398-W	9/3/98	<0.12	<0.25	<0.16	<0.21	<0.27	<0.32	29
IRPMW50-120298-W	12/2/98	<0.28	<0.24	0.5 <sup>J</sup>	<0.24	<0.25	<0.15	32
IRPMW50-021799-W	2/17/99	<0.22	<0.21	<0.24	<0.37	<0.46	<0.48	29
IRPMW50-052099-W	5/20/99	<0.07	<0.1	<0.07	<0.06	<0.07	<0.05	27
IRPMW50-081299-W	8/12/99	<0.16	<0.17	<0.21	<0.4	<0.27	<0.14	27
IRPMW50-111799-W	11/17/99	<0.22	<0.21	<0.24	<0.37	<0.46	<0.48	32
Analyses		12	12	12	12	12	11	12
Detections		0	0	1	0	0	0	12
Minimum Concentration		0	0	0.5	0	0	0	26
Maximum Concentration		0	0	0.5	0	0	0	33
HWAD_-_GW_Action_Level		100		5	1000	100	0.081	5
HWAD_-_GW_Action_Level Hits		0		0	0	0	0	12

**Volatile Organic Compounds**

Sample ID	Sample Date	Trichlorofluoromethane	Vinyl chloride	Xylenes-m&p	Xylene-o
		ug/l	ug/l	ug/l	ug/l
IRPMW50-020197-W	2/1/97	<0.2	<0.2	<0.5	<0.2
IRPMW50-042697-W	4/26/97	<0.1	<0.1	<0.2	<0.1
IRPMW50-072397-W	7/23/97	<0.5	<0.3	<0.4	<0.3
IRPMW50-101597-W	10/15/97	<0.5	<0.3	<0.4	<0.3
IRPMW50-030898-W	3/8/98	<0.31	<0.38	NA	<0.34
IRPMW50-060498-W	6/4/98	<0.31	<0.3	NA	<0.24
IRPMW50-090398-W	9/3/98	<0.44	<0.36	NA	<0.19
IRPMW50-120298-W	12/2/98	<0.31	<0.3	NA	<0.24
IRPMW50-021799-W	2/17/99	<0.73	<0.51	<0.93	<0.3
IRPMW50-052099-W	5/20/99	<0.04	<0.25	<0.11	<0.03
IRPMW50-081299-W	8/12/99	<0.25	<0.18	<0.17	<0.1
IRPMW50-111799-W	11/17/99	<0.73	<0.51	<0.93	<0.3
Analyses		12	12	8	12
Detections		0	0	0	0
Minimum Concentration		0	0	0	0
Maximum Concentration		0	0	0	0
HWAD_-_GW_Action_Level		1300		10000	10000
HWAD_-_GW_Action_Level Hits		0		0	0

**Semivolatile Organic Compounds**

Sample ID	Sample Date								
		1,2,4,5-Tetrachlorobenzene ug/l	1,2,4-Trichlorobenzene ug/l	1,2-Dichlorobenzene ug/l	1,2-Diphenylhydrazine ug/l	1,3-Dichlorobenzene ug/l	1,4-Dichlorobenzene ug/l	1-Chloronaphthalene ug/l	1-Naphthylamine ug/l
IRPMW50-020197-W	2/1/97	<1.4	<0.8	<0.7	<0.5	<0.5	<0.6	<3.4	<0.7
IRPMW50-042697-W	4/26/97	<1.3	<1.8	<1.4	<2.7	<1.3	<1.5	<3.6	<3.9
IRPMW50-072397-W	7/23/97	<1.4	<0.8	<0.7	<0.5	<0.5	<0.6	<3.4	<0.7
IRPMW50-101597-W	10/15/97	<1.4	<0.8	<0.7	<0.5	<0.5	<0.6	<3.4	<0.7
IRPMW50-030898-W	3/8/98	<1.6	<1.6	<1.6	<0.54	<1.5	<1.4	<3.5	<2.4
IRPMW50-060498-W	6/4/98	<1.2	<0.94	<1	<0.54	<0.9	<1	<1.2	<0.84
IRPMW50-090398-W	9/3/98	<1.2	<0.94	<1	<0.54	<0.9	<1	<1.2	<0.84
IRPMW50-120298-W	12/2/98	<1.3	<1.1	<1.1	<1.5	<0.9	<1	<1.2	<0.74
IRPMW50-021799-W	2/17/99	<1.4	<1.6	<1.4	<0.87	<1.4	<1.3	<1.2	<4.7
IRPMW50-052099-W	5/20/99	<1.3	<1.5	<1.4	<1.6	<1.1	<1.2	<1.2	<4.7
IRPMW50-081299-W	8/12/99	<1.4	<1.6	<1.4	<0.87	<1.4	<1.3	<1.2	<4.7
IRPMW50-111799-W	11/17/99	<1.3	<1.5	<1.4	<1.6	<1.1	<1.2	<1.2	<4.7
Analyses		12	12	12	12	12	12	12	12
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		11	70	600	0.084	17	75		
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0		

Semivolatile Organic Compounds

Sample ID	Sample Date	2,3,4,6-Tetrachlorophenol ug/l	2,4,5-Trichlorophenol ug/l	2,4,6-Trichlorophenol ug/l	2,4-Dichlorophenol ug/l	2,4-Dimethylphenol ug/l	2,4-Dinitrophenol ug/l	2,4-Dinitrotoluene ug/l	2,6-Dichlorophenol ug/l
IRPMW50-020197-W	2/1/97	<0.5	<1.7	<0.5	<0.6	<0.9	<13 <sup>UJ</sup>	<0.7	<0.6
IRPMW50-042697-W	4/26/97	<1.4	<1.2	<1.1	<1.5	<5.2	<9.2	<0.2	<1.5
IRPMW50-072397-W	7/23/97	<0.5	<1.7	<0.5	<0.6	<0.9	<13	<0.7	<0.6
IRPMW50-101597-W	10/15/97 <sup>UJ</sup>	<0.5	<1.7	<0.5	<0.6	<0.9	<13	<0.7	NA
IRPMW50-030898-W	3/8/98	<1.7	<1.4	<1.7	<1.6	<1.4	<12	<1.7	NA
IRPMW50-060498-W	6/4/98	<1.1	<0.9	<1.2	<1.2	<1.2	<6	<0.54	NA
IRPMW50-090398-W	9/3/98 <sup>UJ</sup>	<1.1	<0.9	<1.2	<1.2	<1.2	<6	<0.54	NA
IRPMW50-120298-W	12/2/98	<1.5	<1.3	<1.3	<1.2	<1.1	<2.1	<1.2	NA
IRPMW50-021799-W	2/17/99	<1.3	<1.8	<1.7	<1.8	<1.4	<11	<1.5	NA
IRPMW50-052099-W	5/20/99	<1.7	<1.5	<1.5	<1.8	<1.3	<11	<1.2	NA
IRPMW50-081299-W	8/12/99	<1.3	<1.8	<1.7	<1.8	<1.4	<11	<1.5	NA
IRPMW50-111799-W	11/17/99	<1.7	<1.5	<1.5	<1.8	<1.3	<11 <sup>UJ</sup>	<1.2	NA
Analyses		12	12	12	12	12	12	12	3
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		1100	3700	6.1	110	730	73	73	
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	0	

**Semivolatile Organic Compounds**

Sample ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	2-Naphthylamine	2-Nitroaniline
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW50-020197-W	2/1/97	<0.5	<0.8	<0.7	<0.8	<0.5	<1	<0.4
IRPMW50-042697-W	4/26/97	<1.1	<2	<1.5	<2.1	<1.7	<2.8 <sup>UJ</sup>	<1.4
IRPMW50-072397-W	7/23/97	<0.5	<0.8	<0.7	<0.8	<0.5	<1	<0.4
IRPMW50-101597-W	10/15/97	<0.5	<0.8	<0.7	<0.8	<0.5	<1 <sup>UJ</sup>	<0.4
IRPMW50-030898-W	3/8/98	<1.7	<1.5	<1.3	<1.1	<2.3	<2.1	<1.5
IRPMW50-060498-W	6/4/98	<1.2	<1.6	<1.1	<1.2	<2.5	<1.3	<0.86
IRPMW50-090398-W	9/3/98	<1.2	<1.6	<1.1	<1.2	<2.5	<1.3 <sup>UJ</sup>	<0.86
IRPMW50-120298-W	12/2/98	<1.2	<1.1	<1.2	<1.1	<2.7	<0.82	<1.3
IRPMW50-021799-W	2/17/99	<1.8	<2.6	<1.3	<2.3	<0.7	<5.7	<7.9
IRPMW50-052099-W	5/20/99	<1.7	<1.7	<1.5	<1.7	<1.2	<4.7	<6.8
IRPMW50-081299-W	8/12/99	<1.8	<2.6	<1.3	<2.3	<0.7	<5.7 <sup>UJ</sup>	<7.9
IRPMW50-111799-W	11/17/99	<1.7	<1.7	<1.5	<1.7	<1.2	<4.7	<6.8
Analyses		12	12	12	12	12	12	12
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		37	490	38	1800			2.2
HWAD_-_GW_Action_Level Hits		0	0	0	0			0

Semivolatile Organic Compounds

Sample ID	Sample Date	2-Nitrophenol ug/l	2-Picoline ug/l	3,3-Dichlorobenzidine ug/l	3-Methylcholanthrene ug/l	3-Nitroaniline ug/l	3/4-Methylphenol (m/p-Cresol) ug/l	4,6-Dinitrophenol-o-cresol ug/l	4-Aminobiphenyl ug/l
IRPMW50-020197-W	2/1/97	<0.8	<0.5	<1.7	<0.6	<3.8	NA	<2.4	<0.7
IRPMW50-042697-W	4/26/97	<1.3	<1.9	<2.1	<1.7	<1.3	<4.2	<2.3	<1.4
IRPMW50-072397-W	7/23/97	<0.8	<0.5	<1.7	<0.6	<3.8	<1	<2.4	<0.7
IRPMW50-101597-W	10/15/97	<0.8	<0.5	<1.7	NA	<3.8	NA	<2.4	<0.7
IRPMW50-030898-W	3/8/98	<1.3	<1.3	<2.7	NA	<1.8	NA	<2.9	<1.5
IRPMW50-060498-W	6/4/98	<0.98	<1.2	<0.6	NA	<1.2	NA	<2.3	<1.6
IRPMW50-090398-W	9/3/98	<0.98	<1.2	<0.6	NA	<1.2	NA	<2.3	<1.6
IRPMW50-120298-W	12/2/98	<1.3	<0.88	<2.4	NA	<1.3	NA	<0.89	<1.6
IRPMW50-021799-W	2/17/99	<1.4	<1.1	<6.4	NA	<8.5	NA	<5.5	<1.5
IRPMW50-052099-W	5/20/99	<1.3	<1.5	<5	NA	<6.3	NA	<5.2	<0.67
IRPMW50-081299-W	8/12/99	<1.4	<1.1	<6.4	NA	<8.5	NA	<5.5	<1.5
IRPMW50-111799-W	11/17/99	<1.3	<1.5	<5	NA	<6.3	NA	<5.2	<0.67
Analyses		12	12	12	3	12	2	12	12
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level				0.15			180		
HWAD_-_GW_Action_Level Hits					0		0		

Semivolatile Organic Compounds

Sample ID	Sample Date	4-Bromophenyl phenyl ether		4-Chloro-3-methylphenol		4-Chloroaniline		4-Methylphenol		4-Nitroaniline		4-Nitrophenol	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
IRPMW50-020197-W	2/1/97	<0.6	<0.6	<0.7	<0.7	<1	<1.1	<3.2	<3.2	<1.1	<1.7	<2.1	
IRPMW50-042697-W	4/26/97	<1.6	<1.7	<1.1	<1.2	NA	<1.1	<1.7	<2.1	<1.1	<1.1	<3.2	
IRPMW50-072397-W	7/23/97	<0.6	<0.6	<0.7	<0.7	NA	<1.1	<1.1	<3.2	<1.1	<1.1	<3.2	
IRPMW50-101597-W	10/15/97	<0.6	<0.6	<0.7	<0.7	<1	<1.1	<3.2	<3.2	<1.1	<1.1	<1.9	
IRPMW50-030898-W	3/8/98	<0.61	<1.6	<0.63	<1.3	<2.3	<2	<1.9	<1.9	<1	<1.6	<1.6	
IRPMW50-060498-W	6/4/98	<0.6	<1.2	<1.2	<0.79	<2.5	<1	<1.6	<1.6	<1	<1.6	<1.6	
IRPMW50-090398-W	9/3/98	<0.6	<1.2	<1.2	<0.79	<2.5	<1	<1.6	<1.6	<1	<1.4	<2.2	
IRPMW50-120298-W	12/2/98	<1.5	<1.3	<1.1	<1.2	<2.7	<1.4	<2.2	<2.2	<5.7	<3.7	<3.7	
IRPMW50-021799-W	2/17/99	<2.1	<1.3	<5.9	<1.6	<1.7	<5.7	<3.6	<3.6	<7.1	<7.1	<3.6	
IRPMW50-052099-W	5/20/99	<1.2	<1.4	<9.3	<1.4	<1.7	<1.7	<1.7	<1.7	<5.7	<5.7	<3.7	
IRPMW50-081299-W	8/12/99	<2.1	<1.3	<5.9	<1.6	<1.7	<1.7	<1.7	<1.7	<7.1	<7.1	<3.6	
IRPMW50-111799-W	11/17/99	<1.2	<1.4	<9.3	<1.4	<1.7	<1.7	<1.7	<1.7	<7.1	<7.1	<3.6	
Analyses		12	12	12	12	10	12	12	12	12	12	12	
Detections		0	0	0	0	0	0	0	0	0	0	0	
Minimum Concentration		0	0	0	0	0	0	0	0	0	0	0	
Maximum Concentration		0	0	0	0	0	0	0	0	0	0	0	
HWAD_-_GW_Action_Level				150		180							
HWAD_-_GW_Action_Level Hits				0		0							

**Semivolatile Organic Compounds**

Sample ID	Sample Date	7,12-Dimethylbenz(a)anthracene							
		a,a-Dimethylphenethylamine	Acenaphthene	Acenaphthylene	Acetophenone	Aniline	Anthracene	ug/l	ug/l
IRPMW50-020197-W	2/1/97	<0.8	<2	<0.7	<0.6	<0.5	<1.1	<0.5	
IRPMW50-042697-W	4/26/97	<4.6	<1.3	<1.8	<2.1	<1.2	<1.1	<2.1	
IRPMW50-072397-W	7/23/97	<0.8	<2 <sup>UJ</sup>	<0.7	<0.6	<0.5	<1.1	<0.5	
IRPMW50-101597-W	10/15/97	<0.8	<2	<0.7	<0.6	<0.5	<1.1	<0.5	
IRPMW50-030898-W	3/8/98	<2.7	<3.5	<1.6	<1.4	<1.3	<1.5	<0.8	
IRPMW50-060498-W	6/4/98	<0.67	<4.2	<1.1	<1.1	<0.99	<1.5	<1.5	
IRPMW50-090398-W	9/3/98	<0.67	<4.2	<1.1	<1.1	<0.99	<1.5	<1.5	
IRPMW50-120298-W	12/2/98	<1.2	<2.7	<1.2	<1.2	<1.4	<0.95	<1.4	
IRPMW50-021799-W	2/17/99	<2.1	<5.8	<1.6	<1.4	<0.88	<0.78	<1.4	
IRPMW50-052099-W	5/20/99	<0.67	<1.3	<1.4	<1.5	<1.5	<2	<1.1	
IRPMW50-081299-W	8/12/99	<2.1	<5.8	<1.6	<1.4	<0.88	<0.78	<1.4	
IRPMW50-111799-W	11/17/99	<0.67	<1.3	<1.4	<1.5	<1.5	<2	<1.1	
Analyses		12	12	12	12	12	12	12	12
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_ _ GW_Action_Level				370		0.042	12	1800	
HWAD_ _ GW_Action_Level Hits				0		0	0	0	0

**Semivolatile Organic Compounds**

Sample ID	Sample Date	Benzidine ug/l	Benzo(a)anthracene ug/l	Benzo(a)pyrene ug/l	Benzo(b)fluoranthene ug/l	Benzo(g,h,i)perylene ug/l	Benzo(k)fluoranthene ug/l	Benzoic acid ug/l
IRPMW50-020197-W	2/1/97	<1.7 <sup>UJ</sup>	<0.8	<0.7	<0.5	<0.8	<0.9	<3.2 <sup>UJ</sup>
IRPMW50-042697-W	4/26/97	<1.4 <sup>UJ</sup>	<1.9	<1.5	<1.8	<1.5	<2.4 <sup>UJ</sup>	<3 <sup>UJ</sup>
IRPMW50-072397-W	7/23/97	<1.7 <sup>UJ</sup>	<0.8	<0.7	<0.5	<0.8	<0.9	<3.2 <sup>UJ</sup>
IRPMW50-101597-W	10/15/97	<1.7 <sup>UJ</sup>	<0.8	<0.7	<0.5	<0.8	<0.9	<3.2 <sup>UJ</sup>
IRPMW50-030898-W	3/8/98	<2.1	<0.6	<2.5	<0.69	<2.6	<0.69	<2.7 <sup>UJ</sup>
IRPMW50-060498-W	6/4/98	<1.8	<0.69	<2.2	<1.9	<0.57	<0.81	<3.2
IRPMW50-090398-W	9/3/98	<1.8	<0.69	<2.2	<1.9	<0.57	<0.81	<3.2
IRPMW50-120298-W	12/2/98	<0.47	<3	<3.1	<2.7	<4.3	<3.3	<1
IRPMW50-021799-W	2/17/99	<3.8	<1.8	<2	<1.8	<1.6	<2.3	<3.8
IRPMW50-052099-W	5/20/99	<3.8	<1.1	<2.2	<1	<1.5	<1.3	<3.6
IRPMW50-081299-W	8/12/99	<3.8	<1.8	<2	<1.8	<1.6	<2.3	<3.8
IRPMW50-111799-W	11/17/99	<3.8	<1.1	<1.2	<1	<1.5	<1.3	<3.6
Analyses		12	12	12	12	12	12	12
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.00029	0.1	0.2	0.2			150000
HWAD_-_GW_Action_Level Hits		0	0	0	0			0

Semivolatile Organic Compounds

Sample ID	Sample Date	Benzyl alcohol	bis(2-Chloroethoxy) methane	bis(2-Chloroethyl) ether	bis(2-Chloroisopropyl)-ether	bis(2-Ethylhexyl)-phthalate	Butyl benzyl phthalate	Chrysene	Di-n-Butyl-phthalate
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW50-020197-W	2/1/97	<0.5	<0.8	<0.7	<1.8 <sup>UJ</sup>	<2.4	<0.7	<0.6	<1.3
IRPMW50-042697-W	4/26/97	<1.1	<1.4	<1.2	<2.3	6 <sup>J</sup>	<2.3	<1.1	<1.8
IRPMW50-072397-W	7/23/97	<0.5	<0.8	<0.7	<1.8	<2.4	<0.7	<0.6	<1.3
IRPMW50-101597-W	10/15/97	<0.5	<0.8	<0.7	<1.8	<2.4	3 <sup>J</sup>	<0.6	<1.3
IRPMW50-030898-W	3/8/98	<1	<1.6	<1.9	<2.3	6 <sup>J</sup>	5 <sup>J</sup>	<0.5	<1
IRPMW50-060498-W	6/4/98	<1.5	<1.2	<1.1	<2.3	<2.6	4 <sup>J</sup>	<0.7	<2.5
IRPMW50-090398-W	9/3/98	<1.5	<1.2	<1.1	<2.3	<2.6	4 <sup>J</sup>	<0.7	<2.5
IRPMW50-120298-W	12/2/98	<1.3	<1.2	<1.2	<1	<3.5	5 <sup>J</sup>	<3.2	<2.7
IRPMW50-021799-W	2/17/99	<0.53	<1.1	<2.4	<1.3	<2.8	4 <sup>J</sup>	<1.6	<1.8
IRPMW50-052099-W	5/20/99	<1.5	<1.5	<1.4	<1.4	<1.1	3 <sup>J</sup>	<1.3	<0.97
IRPMW50-081299-W	8/12/99	<0.53	<1.1	<2.4	<1.3	<2.8	3 <sup>J</sup>	<1.6	<1.8
IRPMW50-111799-W	11/17/99	<1.5	<1.5	<1.4	<1.4	<1.1	5 <sup>J</sup>	<1.3	<0.97
Analyses		12	12	12	12	12	12	12	12
Detections		0	0	0	0	2	9	0	0
Minimum Concentration		0	0	0	0	6	3	0	0
Maximum Concentration		0	0	0	0	6	5	0	0
HWAD_-_GW_Action_Level		11000		0.0098	0.27	6	100	0.2	3700
HWAD_-_GW_Action_Level Hits		0		0	0	2	0	0	0

**Semivolatile Organic Compounds**

Sample ID	Sample Date	Di-n-octyl phthalate ug/l	Dibenz(a,h)anthracene ug/l	Dibenz(a,j)acridine ug/l	Dibenzofuran ug/l	Diethyl phthalate ug/l	Dimethyl phthalate ug/l	Diphenylamine ug/l
IRPMW50-020197-W	2/1/97	<0.7	<0.7	<0.6	<0.6	<0.7	<0.5	<0.7
IRPMW50-042697-W	4/26/97	<1.3	<1.4	<1.2	<2.3	<2	<1.2	<1.3
IRPMW50-072397-W	7/23/97	<0.7	<0.7	<0.6	<0.6	<0.7	<0.5	<0.7
IRPMW50-101597-W	10/15/97	<0.7	<0.7	<0.6	<0.6	<0.7	<0.5	<0.7
IRPMW50-030898-W	3/8/98	<2.8	<2.6	<2.4	<1.5	<1.5	<1.5	<1.5
IRPMW50-060498-W	6/4/98	<2.6	<2.1	<2	<0.93	<0.85	<0.8	<0.89
IRPMW50-090398-W	9/3/98	<2.6	<2.1	<2	<0.93	<0.85	<0.8	<0.89
IRPMW50-120298-W	12/2/98	<2.7	<4.3	<1.9	<1.3	<1.5	<1.5	<1.6
IRPMW50-021799-W	2/17/99	<3.1	<1.6	<1.5	<1.5	<1.7	<1.5	<1.5
IRPMW50-052099-W	5/20/99	<1.4	<1.3	<1.4	<1.6	<1.3	<1.4	<1.1
IRPMW50-081299-W	8/12/99	<3.1	<1.6	<1.5	<1.5	<1.7	<1.5	<1.5
IRPMW50-111799-W	11/17/99	<1.4	<1.3	<1.4	<1.6	<1.3	<1.4	<1.1
Analyses		12	12	12	12	12	12	12
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_--GW_Action_Level		730	0.0092		24	29000	370000	910
HWAD_--GW_Action_Level Hits		0	0		0	0	0	0

Semivolatile Organic Compounds

Sample ID	Sample Date	Ethyl methanesulfonate ug/l	Fluoranthene ug/l	Fluorene ug/l	Hexachlorobenzene ug/l	Hexachlorobutadiene ug/l	Hexachlorocyclopentadiene ug/l	Hexachloroethane ug/l
IRPMW50-020197-W	2/1/97	<0.8	<0.7	<0.7	<0.6	<0.6	<8.2	<0.5
IRPMW50-042697-W	4/26/97	<1.2	<1.7	<2.1	<2.4	<3	<5.4	<1.7
IRPMW50-072397-W	7/23/97	<0.8	<0.7	<0.7	<0.6	<0.6	<8.2	<0.5
IRPMW50-101597-W	10/15/97	<0.8	<0.7	<0.7	<0.6	<0.6	<8.2	<0.5
IRPMW50-030898-W	3/8/98	<0.8	<1.2	<1.2	<1.3	<1.4	<8.5	<1.5
IRPMW50-060498-W	6/4/98	<0.8	<0.72	<0.78	<0.65	<1.2	<4.8	<0.87
IRPMW50-090398-W	9/3/98	<0.8	<0.72	<0.78	<0.65	<1.2	<4.8	<0.87
IRPMW50-120298-W	12/2/98	<0.8	<2.4	<1.3	<1.4	<0.95	<4.3	<0.95
IRPMW50-021799-W	2/17/99	<1.3	<1.6	<1.6	<1.6	<2	<8	<1
IRPMW50-052099-W	5/20/99	<1.1	<1.1	<1.4	<1.1	<1.4	<2.4	<1.4
IRPMW50-081299-W	8/12/99	<1.3	<1.6	<1.6	<1.6	<2	<8	<1
IRPMW50-111799-W	11/17/99	<1.1	<1.1	<1.4	<1.1	<1.4	<2.4	<1.4
Analyses		12	12	12	12	12	12	12
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		1500	240	1	0.86	50	4.8	
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	0

**Semivolatile Organic Compounds**

Sample ID	Sample Date	Indeno(1,2,3-c,d)pyrene	Isophorone	Methyl methanesulfonate	N-Nitroso-di-n-butylamine	N-Nitroso-di-n-propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW50-020197-W	2/1/97	<0.7	<0.6	<0.5	<0.7	<0.6	<0.6	<0.5
IRPMW50-042697-W	4/26/97	<1.2	<1.2	<1.1	<1.1	<1.6	<1.1	<2.6
IRPMW50-072397-W	7/23/97	<0.7	<0.6	<0.5	<0.7	<0.6	<0.6	<0.5
IRPMW50-101597-W	10/15/97	<0.7	<0.6	<0.5	<0.7	<0.6	<0.6	<0.5
IRPMW50-030898-W	3/8/98	<2.7	<1.6	<1.4	<1.4	<1.3	<1.4	<1.6
IRPMW50-060498-W	6/4/98	<2	<1.1	<1.1	<1.1	<1.5	<0.89	<0.99
IRPMW50-090398-W	9/3/98	<2	<1.1	<1.1	<1.1	<1.5	<0.89	<0.99
IRPMW50-120298-W	12/2/98	<3.3	<1.4	<1.2	<1.6	<1.4	<1.6	<1.5
IRPMW50-021799-W	2/17/99	<1.9	<1.3	<0.87	<1.3	<1.9	<1.6	<7.1
IRPMW50-052099-W	5/20/99	<1.4	<1.3	<1.2	<1.3	<1.3	<1.2	<5.2
IRPMW50-081299-W	8/12/99	<1.9	<1.3	<0.87	<1.3	<1.9	<1.6	<7.1
IRPMW50-111799-W	11/17/99	<1.4	<1.3	<1.2	<1.3	<1.3	<1.2	<5.2
Analyses		12	12	12	12	12	12	12
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level	0.092	71		0.002	0.0096	0.0013	14	
HWAD_-_GW_Action_Level Hits	0	0		0	0	0	0	

**Semivolatile Organic Compounds**

Sample ID	Sample Date	N-Nitrosopiperidine ug/l	Naphthalene ug/l	Nitrobenzene ug/l	p-Dimethylaminoazobenzene ug/l	Pentachlorobenzene ug/l	Pentachloronitrobenzene ug/l	Pentachlorophenol ug/l
IRPMW50-020197-W	2/1/97	<0.6	<0.6	<0.8	<2.3	<1.8	NA	<1.8
IRPMW50-042697-W	4/26/97	<1.3	<1.1	<1.7	<1.1	<2.1	<1.4	<6.5
IRPMW50-072397-W	7/23/97	<0.6	<0.6	<0.8	<2.3	<1.8	<0.5	<1.8
IRPMW50-101597-W	10/15/97	<0.6	<0.6	<0.8	<2.3	<1.8	NA	<1.8
IRPMW50-030898-W	3/8/98	<1.5	<1.4	<0.94	<0.65	<1.6	<3.3	<15
IRPMW50-060498-W	6/4/98	<0.87	<1.1	<0.93	<0.65	<0.94	<0.51	<11
IRPMW50-090398-W	9/3/98	<0.87	<1.1	<0.93	<0.65	<0.94	<0.51	<11
IRPMW50-120298-W	12/2/98	<1.2	<1.1	<1.2	<0.65	<1.2	<1.7	<9.1
IRPMW50-021799-W	2/17/99	<1.7	<1.5	<0.83	<1.1	<1.8	<1.3	<3.7 <sup>UJ</sup>
IRPMW50-052099-W	5/20/99	<1.2	<1.4	<0.79	<1.2	<1.5	<1	<11
IRPMW50-081299-W	8/12/99	<1.7	<1.5	<0.83	<1.1	<1.8	<1.3	<3.7
IRPMW50-111799-W	11/17/99	<1.2	<1.4	<0.79	<1.2	<1.5	<1	<11
Analyses		12	12	12	12	12	10	12
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level			6.2	3.4		29	0.26	1
HWAD_-_GW_Action_Level Hits			0	0		0	0	0

Semivolatile Organic Compounds

Sample ID	Sample Date	Phenacetin ug/l	Phenanthrene ug/l	Phenol ug/l	Pronamide ug/l	Pyrene ug/l
IRPMW50-020197-W	2/1/97	<0.6	<0.6	<1.9	<2.6	<0.6
IRPMW50-042697-W	4/26/97	<1.4	<2.5	<1.4	<1.2	<2.4
IRPMW50-072397-W	7/23/97	<0.6	<0.6	<1.9	<2.6	<0.6
IRPMW50-101597-W	10/15/97	<0.6	<0.6	<1.9	<2.6	<0.6
IRPMW50-030898-W	3/8/98	<0.99	<1	<1.7	<1.6	<0.54
IRPMW50-060498-W	6/4/98	<2.2	<1.1	<1.1	<0.57	<0.57
IRPMW50-090398-W	9/3/98	<2.2	<1.1	<1.1	<0.57	<0.57
IRPMW50-120298-W	12/2/98	<3.5	<1.6	<1.1	<2.9	<2.1
IRPMW50-021799-W	2/17/99	<0.84	<1.5	<0.55	<1.8	<1.8
IRPMW50-052099-W	5/20/99	<1.1	<1.2	<2.1	<1.3	<1.1
IRPMW50-081299-W	8/12/99	<0.84	<1.5	<0.55	<1.8	<1.8
IRPMW50-111799-W	11/17/99	<1.1	<1.2	<2.1	<1.3	<1.1
Analyses		12	12	12	12	12
Detections		0	0	0	0	0
Minimum Concentration		0	0	0	0	0
Maximum Concentration		0	0	0	0	0
HWAD_-_GW_Action_Level				22000	2700	180
HWAD_-_GW_Action_Level Hits				0	0	0

**Explosives**

Sample ID	Sample Date	1,3,5-Trinitrobenzene					
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW50-020197-W	2/1/97	<0.1	<0.058	<0.065	<0.018	NA	<0.09
IRPMW50-042697-W	4/26/97	<0.1	<0.058	<0.065	<0.018	NA	<0.09
IRPMW50-072397-W	7/23/97	<0.1	<0.058	<0.065	<0.018	NA	<0.09
IRPMW50-101597-W	10/15/97	<0.1	<0.061	<0.094	<0.02	NA	<0.066
IRPMW50-030898-W	3/8/98	<0.093	<0.09	<0.069	<0.061	NA	<0.12
IRPMW50-060498-W	6/4/98	<0.093	<0.09	<0.069	<0.061	NA	<0.12
IRPMW50-090398-W	9/3/98	<0.093	<0.09	<0.069	<0.061	NA	<0.12
IRPMW50-120298-W	12/2/98	<0.093	<0.09	<0.069	<0.061	NA	<0.12
IRPMW50-021799-W	2/17/99	<0.22	<0.22	<0.13	<0.13	<0.05	<0.16
IRPMW50-052099-W	5/20/99	<0.22	<0.22	<0.13	<0.13	<0.05	<0.16
IRPMW50-081299-W	8/12/99	<0.22	<0.22	<0.13	<0.13	NA	<0.16
IRPMW50-111799-W	11/17/99	<0.22	<0.22	<0.13	<0.13	NA	<0.16
Analyses		12	12	12	12	2	12
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level		1100	3.7	2.2	73	37	
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	

**Explosives**

Sample ID	Sample Date	2-Amino-4,6-dinitrotoluene					
		ug/l	ug/l	ug/l	ug/l	ug/l	HMX
IRPMW50-020197-W	2/1/97	<0.031	<0.13	<0.11	<0.035	<0.13	<0.17
IRPMW50-042697-W	4/26/97	<0.031	<0.13	<0.11	<0.035	<0.13	<0.17
IRPMW50-072397-W	7/23/97	<0.031	<0.13	<0.11	<0.035	<0.13	<0.17
IRPMW50-101597-W	10/15/97	<0.022	<0.14	<0.11	<0.022	<0.13	<0.15
IRPMW50-030898-W	3/8/98	<0.14	<0.074	<0.16	<0.13	<0.074	<0.11
IRPMW50-060498-W	6/4/98	<0.14	NA	<0.16	<0.13	NA	<0.11
IRPMW50-090398-W	9/3/98	NA	NA	<0.16	<0.13	NA	<0.11
IRPMW50-120298-W	12/2/98	NA	NA	<0.16	<0.13	NA	<0.11
IRPMW50-021799-W	2/17/99	<0.11	NA	<0.063	<0.13	NA	<0.25
IRPMW50-052099-W	5/20/99	<0.11	NA	<0.063	<0.13	NA	<0.25
IRPMW50-081299-W	8/12/99	<0.11	<0.05	<0.063	<0.13	<0.05	<0.25
IRPMW50-111799-W	11/17/99	<0.11	<0.05	<0.063	<0.13	<0.05	<0.25
Analyses		10	7	12	12	7	12
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.099		370	0.099	370	1800
HWAD_-_GW_Action_Level Hits		0		0	0	0	0

**Explosives**

Sample ID	Sample Date	Nitrobenzene	Picric Acid	RDX	Tetryl
		ug/l	ug/l	ug/l	ug/l
IRPMW50-020197-W	2/1/97	<0.073	<7.1	<0.13	<0.066
IRPMW50-042697-W	4/26/97	<0.073	<7.1	<0.13	<0.066
IRPMW50-072397-W	7/23/97	<0.11	<7.1	<0.13	<0.13
IRPMW50-101597-W	10/15/97	<0.11	<0.3	2	<0.13
IRPMW50-030898-W	3/8/98	<0.11	<0.3	<0.078	<0.065
IRPMW50-060498-W	6/4/98	<0.11	<0.3	<0.078	<0.065
IRPMW50-090398-W	9/3/98	<0.11	<0.3	<0.078	<0.065
IRPMW50-120298-W	12/2/98	<0.11	NA	<0.078	<0.065
IRPMW50-021799-W	2/17/99	<0.26	<0.24	<0.29	<0.12
IRPMW50-052099-W	5/20/99	<0.26	<0.24	<0.29	<0.12
IRPMW50-081299-W	8/12/99	<0.26	<0.24	<0.29	<0.12
IRPMW50-111799-W	11/17/99	<0.26	<0.24	<0.29	<0.12
Analyses		12	11	12	12
Detections		0	0	1	0
Minimum Concentration		0	0	2	0
Maximum Concentration		0	0	2	0
HWAD_--GW_Action_Level		3.4	1	0.61	
HWAD_--GW_Action_Level Hits		0	0	1	

## **Yashekia Evans**

---

**From:** Mary Matthews  
**Sent:** Monday, June 18, 2001 4:07 PM  
**To:** Yashekia Evans  
**Subject:** FW: toelee cover

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged



-----Original Message-----

From: Cynthia Wren  
Sent: Monday, June 18, 2001 3:53 PM  
To: Mary Matthews  
Subject: toelee cover

Mary, the general format for the TEAD cover is the same as the Hawthorne Remedial Investigation documents.

The TEAD logo and cover page are attached for you to use.

Also, a picture of TEAD is located in file 0108A.

I need by Thursday if possible (I am heading your way to complete a request form). Thanks!



**Monitoring Well Evaluation Checklist for Well No. JRPMMW51**

**SWMU / Area** 109/10, 111, and 118  
**Aquifer** SW

**Well Condition** Good

**Describe Problems** Yes  
**Purpose of Well** None

**Primary** Upgradient of SWMU 109/10

**Secondary** Regional groundwater data, downgradient of SWMU 118

**Retain for Chemical Monitoring (list compounds)** VOCs

**Proposed Sample Frequency** Annually

**Analytical Results**

Sampling Events		Date First Sampled	Date Last Sampled	Analyses	Detections	Highest Concentration	HWAD GW AL	Exceeds Standard
Explosive	3	2/1/97	3/8/98	3	0	ND	--	No
VOC	3	2/1/97	3/8/98	3	1	--	--	No
IPB					1	0.6	19	0
SVOC	3	2/1/97	3/8/98	3	1	--	--	No
Butyl benzyl phthalate					1	12	100	0
Nitrogen Compounds	3	2/1/97	3/8/98	3	1	--	--	No
Total Kjeldahl Nitrogen					2	0.2	NE	0

ND = Non-detect

NE = Not established

**Water Characteristics**

Sample ID	Sample Date	Ammonia as Nitrogen		Calcium, Total ug/l	Iron, Total ug/l	Kjeldahl Nitrogen, Total mg/l	Magnesium, Total ug/l	Potassium, Total ug/l	Sodium, Total ug/l
		mg/l	ug/l						
IRPMW51-020197-W	2/1/97	<0.06	89900	29.5 J	<0.1	12000	8930	195000	
IRPMW51-042797-W	4/27/97	<0.06	98500	36 J	0.2	13500	12400	212000	
IRPMW51-030898-W	3/8/98	<0.07	96800	14.4 J	0.2	14600	11700 E	245000	
Analyses		3	3	3	3	3	3	3	3
Detections		0	3	3	2	3	3	3	3
Minimum Concentration		0	89900	14.4	0.2	12000	8930	195000	
Maximum Concentration		0	98500	36	0.2	14600	12400	245000	
HWAD_-_GW_Action_Level				11000					
HWAD_-_GW_Action_Level Hits				0					

## Water Characteristics

Sample ID	Sample Date	Solids, Total Dissolved mg/l
IRPMW51-020197-W	2/1/97	938
IRPMW51-042797-W	4/27/97	940
IRPMW51-030898-W	3/8/98	NA
Analyses		2
Detections		2
Minimum Concentration		938
Maximum Concentration		940
HWAD_-_GW_Action_Level		
HWAD_-_GW_Action_Level Hits		

## Nitrogen Compounds

Sample ID	Sample Date	Ammonia as Nitrogen mg/l	Kjeldahl Nitrogen, Total mg/l
IRPMW51-020197-W	2/1/97	<0.06	<0.1
IRPMW51-042797-W	4/27/97	<0.06	0.2
IRPMW51-030898-W	3/8/98	<0.07	0.2
Analyses		3	3
Detections		0	2
Minimum Concentration		0	0.2
Maximum Concentration		0	0.2
HWAD_--GW_Action_Level			
HWAD_--GW_Action_Level Hits			

**Total Metals**

Sample ID	Sample Date	Arsenic, Total		Barium, Total		Beryllium, Total		Cadmium, Total		Chromium, Total		Lead, Total		Mercury, Total		Selenium, Total	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
IRPMW51-020197-W	2/1/97	<1.2	NA	<0.2	<0.1	3.2 <sup>J</sup>	2.1 <sup>J</sup>	<0.15	<2.3								
IRPMW51-042797-W	4/27/97	3.4 <sup>J</sup>	NA	<0.2	<0.1	2.3 <sup>J</sup>	1.1 <sup>J</sup>	<0.15	<2.3								
IRPMW51-030898-W	3/8/98	4	39.9	NA	0.24 <sup>J</sup>	4.6 <sup>J</sup>	1.4	<0.16	<2								
Analyses		3	1	2	3	3	3	3	3								
Detections		2	1	0	1	3	3	0	0								
Minimum Concentration		3.4	39.9	0	0.24	2.3	1.1	0	0								
Maximum Concentration		4	39.9	0	0.24	4.6	2.1	0	0								
HWAD_-_GW_Action_Level		50	2000	4	5	100	15	2	180								
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	0	0								

Total Metals

Sample ID	Sample Date	Silver, Total ug/l
IRPMW51-020197-W	2/1/97	<1.1
IRPMW51-042797-W	4/27/97	<1.1
IRPMW51-030898-W	3/8/98	<1
Analyses		3
Detections		0
Minimum Concentration		0
Maximum Concentration		0
HWAD_--GW_Action_Level		180
HWAD_--GW_Action_Level Hits		0

### Dissolved Metals

Sample ID	Sample Date	Arsenic, Dissolved ug/l	Barium, Dissolved ug/l	Beryllium, Dissolved ug/l	Cadmium, Dissolved ug/l	Chromium, Dissolved ug/l	Lead, Dissolved ug/l	Mercury, Dissolved ug/l	Selenium, Dissolved ug/l
IRPMW51-020197-W	2/1/97	<1.2	NA	<0.2	<0.1	1.6 <sup>J</sup>	<0.6	<0.15	<2.3
IRPMW51-042797-W	4/27/97	3.8 <sup>J</sup>	NA	<0.2	<0.1	2.2 <sup>J</sup>	<0.6	<0.15	4.6 <sup>J</sup>
IRPMW51-030898-W	3/8/98	3.9	41.2	NA	<0.51	2.1 <sup>J</sup>	1.2 <sup>J</sup>	<0.16	<2
Analyses		3	1	2	3	3	3	3	3
Detections		2	1	0	0	3	1	0	1
Minimum Concentration		3.8	41.2	0	0	1.6	1.2	0	4.6
Maximum Concentration		3.9	41.2	0	0	2.2	1.2	0	4.6
HWAD_-_GW_Action_Level		50		4	5	100	15	2	180
HWAD_-_GW_Action_Level Hits		0		0	0	0	0	0	0

## Dissolved Metals

Sample ID	Sample Date	Silver, Dissolved ug/l
IRPMW51-020197-W	2/1/97	<1.1
IRPMW51-042797-W	4/27/97	<1.1
IRPMW51-030898-W	3/8/98	<1
Analyses		3
Detections		0
Minimum Concentration		0
Maximum Concentration		0
HWAD_-_GW_Action_Level		180
HWAD_-_GW_Action_Level Hits		0

Pesticides

Sample ID	Sample Date	2,4,5-T ug/l	2,4,5-TP (Silvex) ug/l	2,4-D ug/l	2,4-DB ug/l	4,4-DDD ug/l	4,4-DDE ug/l
IRPMW51-020197-W	2/1/97	<0.039	<0.009	<0.009	<0.014	<0.003	<0.002
IRPMW51-042797-W	4/27/97	<0.039	<0.009	<0.009	<0.014	<0.032	<0.022
Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD__GW_Action_Level		370	50	70	290	0.28	0.2
HWAD__GW_Action_Level Hits		0	0	0	0	0	0

**Pesticides**

Sample ID	Sample Date	4,4-DDT ug/l	Aldrin ug/l	alpha-BHC ug/l	beta-BHC ug/l	Chlordane ug/l	Dalapon ug/l
IRPMW51-020197-W	2/1/97	<0.003	<0.003	<0.002	<0.001	<0.027	<0.029
IRPMW51-042797-W	4/27/97	<0.032	<0.026	<0.018	<0.013	<0.05	<0.029
Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD__GW_Action_Level		0.2	0.004	0.011	0.037	2	200
HWAD__GW_Action_Level Hits		0	0	0	0	0	0

Pesticides

Sample ID	Sample Date	delta-BHC ug/l	Dicamba ug/l	Dichloroprop ug/l	Dieldrin ug/l	Dinoseb ug/l	Endosulfan I ug/l
IRPMW51-020197-W	2/1/97	<0.001	<0.008	<0.01	<0.003	<0.027	<0.004
IRPMW51-042797-W	4/27/97	<0.011	<0.008	<0.01	<0.027	<0.027	<0.038
Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level			1100		0.0042	7	220
HWAD_-_GW_Action_Level Hits			0		0	0	0

**Pesticides**

Sample ID	Sample Date	Endosulfan II ug/l	Endosulfan sulfate ug/l	Endrin ug/l	Endrin aldehyde ug/l	Endrin ketone ug/l	gamma-BHC (Lindane) ug/l
IRPMW51-020197-W	2/1/97	<0.003	<0.014	<0.0008	<0.003	<0.002	<0.002
IRPMW51-042797-W	4/27/97	<0.025	<0.14	<0.008	<0.028	<0.02	<0.017
Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level				2			0.2
HWAD_-_GW_Action_Level Hits				0			0

**Pesticides**

Sample ID	Sample Date	Heptachlor	Heptachlor epoxide	MCPA	MCPP	Methoxychlor	Toxaphene
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW51-020197-W	2/1/97	<0.002	<0.0009	<1	<1	<0.003	<0.029
IRPMW51-042797-W	4/27/97	<0.024	<0.009	<1 <sup>UJ</sup>	<1 <sup>UJ</sup>	<0.026	<0.29
Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.4	0.2	18	37	40	3
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0

**Volatile Organic Compounds**

Sample ID	Sample Date	1,1,1,2-Tetrachloroethane							
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW51-020197-W	2/1/97	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	<0.3	<0.3
IRPMW51-042797-W	4/27/97	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.7	<0.1
IRPMW51-030898-W	3/8/98	<0.35	<0.36	<0.38	<0.36	<0.22	<0.34	<0.28	
Analyses		3	3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.43	200	0.055	5	810	7		
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0		

**Volatile Organic Compounds**

Sample ID	Sample Date	1,2,3-Trichlorobenzene							
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW51-020197-W	2/1/97	<0.4	<0.8	<0.4	<0.2	<0.3	<0.2	<0.8	<0.8
IRPMW51-042797-W	4/27/97	<0.5	<0.2	<0.3	<0.1	<0.2	<0.4	<0.2	<0.2
IRPMW51-030898-W	3/8/98	<0.3	<0.31	<0.3	<0.31	<0.31	<0.36	<0.36	<0.36
<b>Analyses</b>		3	3	3	3	3	3	3	3
<b>Detections</b>		0	0	0	0	0	0	0	0
<b>Minimum Concentration</b>		0	0	0	0	0	0	0	0
<b>Maximum Concentration</b>		0	0	0	0	0	0	0	0
<b>HWAD_-_GW_Action_Level</b>		0.0016	70	12	0.05	600	5		
<b>HWAD_-_GW_Action_Level Hits</b>		0	0	0	0	0	0	0	0

**Volatile Organic Compounds**

Sample ID	Sample Date	VOCs Detected						
		1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Chlorotoluene	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW51-020197-W	2/1/97	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
IRPMW51-042797-W	4/27/97	<0.1	<0.1	<0.2	<0.1	<0.2	<0.8	<0.2
IRPMW51-030898-W	3/8/98	<0.22	<0.38	<0.38	<0.36	<0.3	<0.31	<0.3
Analyses		3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		5		17		75		120
HWAD_-_GW_Action_Level Hits		0		0		0		0

**Volatile Organic Compounds**

Sample ID	Sample Date	4-Chlorotoluene		4-Isopropyltoluene		Benzene		Bromobenzene		Bromochloromethane		Bromodichloromethane		Bromoform	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW51-020197-W	2/1/97	<0.3	<0.2	<0.2	<0.2	<0.3	<0.3	<0.5	<0.5	<0.2	<0.2	<0.4	<0.4	<0.4	<0.4
IRPMW51-042797-W	4/27/97	<0.2	<0.3	<0.2	<0.2	<0.1	<0.1	<0.2	<0.2	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
IRPMW51-030898-W	3/8/98	<0.4	<0.36	<0.36	<0.36	<0.31	<0.31	<0.47	<0.47	<0.34	<0.34	<0.35	<0.35	<0.35	<0.35
Analyses		3	3	3	3	3	3	3	3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level						5				100	100				
HWAD_-_GW_Action_Level Hits						0				0	0				

**Volatile Organic Compounds**

Sample ID	Sample Date	Bromomethane ug/l	Carbon tetrachloride ug/l	Chlorobenzene ug/l	Chloroethane ug/l	Chloroform ug/l	Chloromethane ug/l	cis-1,2-Dichloroethene ug/l
IRPMW51-020197-W	2/1/97	<0.2	<0.2	<0.3	<0.2	<0.2	<0.2	<0.2
IRPMW51-042797-W	4/27/97	<0.2 <sup>UJ</sup>	<0.1 <sup>UJ</sup>	<0.1	<0.2	<0.1	<0.2	<0.2
IRPMW51-030898-W	3/8/98	<0.96	<0.35	<0.26	<0.57	<0.38	<0.72	<0.28
Analyses		3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		8.7	5	100		100	1.5	70
HWAD_-_GW_Action_Level Hits		0	0	0		0	0	0

**Volatile Organic Compounds**

Sample ID	Sample Date								
		cis-1,3-Dichloropropene	Dibromochloromethane	Dibromochloropropane	Dibromomethane	Dichlorodifluoromethane	Ethylbenzene	Hexachlorobutadiene	
ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW51-020197-W	2/1/97	NA	<0.2	<0.9	<0.2	<0.2	<0.3	<0.4	
IRPMW51-042797-W	4/27/97	<0.2	<0.1	<0.2	<0.2	<0.1	<0.2	<0.3	
IRPMW51-030898-W	3/8/98	<0.22	<0.28	<0.63	<0.31	<0.47	<0.36	<0.36	
<b>Analyses</b>		2	3	3	3	3	3	3	
<b>Detections</b>		0	0	0	0	0	0	0	
<b>Minimum Concentration</b>		0	0	0	0	0	0	0	
<b>Maximum Concentration</b>		0	0	0	0	0	0	0	
<b>HWAD_-_GW_Action_Level</b>			100	0.2		390	700	0.86	
<b>HWAD_-_GW_Action_Level Hits</b>			0	0		0	0	0	

**Volatile Organic Compounds**

Sample ID	Sample Date	Isopropylbenzene		Methylene chloride		MTBE		n-Butylbenzene		n-Propylbenzene		Naphthalene		sec-Butylbenzene	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
IRPMW51-020197-W	2/1/97	0.6	<0.4	<0.5	<0.2	<0.3	<0.4	<0.2	<0.3	<0.2	<0.8	<0.4	<0.2		
IRPMW51-042797-W	4/27/97	<0.2	<0.7	<2.1	<0.3	<0.2	<0.8	<0.2	<0.2	<0.2	<0.2	<0.4	<0.2		
IRPMW51-030898-W	3/8/98	<0.36	<0.6	<0.49	<0.22	<0.3	<0.22	<0.3	<0.22	<0.22	<0.4	<0.2	<0.4		
Analyses		3	3	3	3	3	3	3	3	3	3	3	3		
Detections		1	0	0	0	0	0	0	0	0	0	0	0		
Minimum Concentration		0.6	0	0	0	0	0	0	0	0	0	0	0		
Maximum Concentration		0.6	0	0	0	0	0	0	0	0	0	0	0		
HWAD_-_GW_Action_Level		19	5	20							6.2				
HWAD_-_GW_Action_Level Hits		0	0	0							0				

**Volatile Organic Compounds**

Sample ID	Sample Date	Styrene		tert-Butylbenzene		Tetrachloroethene		Toluene		trans-1,2-Dichloroethene		trans-1,3-Dichloropropene		Trichloroethylene	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
IRPMW51-020197-W	2/1/97	<0.2	<0.2	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	NA	<0.3				
IRPMW51-042797-W	4/27/97	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1				
IRPMW51-030898-W	3/8/98	<0.36	<0.3	<0.36	<0.97	<0.35	<0.36	<0.36	<0.36						
Analyses		3	3	3	3	3	3	2	3						
Detections		0	0	0	0	0	0	0	0						
Minimum Concentration		0	0	0	0	0	0	0	0						
Maximum Concentration		0	0	0	0	0	0	0	0						
HWAD_-_GW_Action_Level		100		5	1000	100	0.081		5						
HWAD_-_GW_Action_Level Hits		0		0	0	0	0	0	0						

Volatile Organic Compounds

Sample ID	Sample Date	Trichlorofluoromethane			
		ug/l	Vinyl chloride	Xylenes-m&-p	Xylene-o
IRPMW51-020197-W	2/1/97	<0.2	<0.2	<0.5	<0.2
IRPMW51-042797-W	4/27/97	<0.1	<0.1	<0.2	<0.1
IRPMW51-030898-W	3/8/98	<0.31	<0.38	NA	<0.34
Analyses		3	3	2	3
Detections		0	0	0	0
Minimum Concentration		0	0	0	0
Maximum Concentration		0	0	0	0
HWAD_-_GW_Action_Level		1300		10000	10000
HWAD_-_GW_Action_Level Hits		0		0	0

**Semivolatile Organic Compounds**

Sample ID	Sample Date	Concentration (ug/l)							
		1,2,4,5-Tetrachlorobenzene	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,2-Diphenylhydrazine	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1-Chloronaphthalene	1-Naphthylamine
IRPMW51-020197-W	2/1/97	<1.4	<0.8	<0.7	<0.5	<0.5	<0.6	<3.4	<0.7
IRPMW51-042797-W	4/27/97	<1.4	<0.8	<0.7	<0.5	<0.5	<0.6	<3.4	<0.7 <sup>UJ</sup>
IRPMW51-030898-W	3/8/98	<1.3	<1.1	<1.1	<1.5	<0.9	<1	<3.5	<0.74
Analyses		3	3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		11	70	600	0.084	17	75		
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0		

**Semivolatile Organic Compounds**

Sample ID	Sample Date	2,3,4,6-Tetrachlorophenol		2,4,5-Trichlorophenol		2,4,6-Trichlorophenol		2,4-Dichlorophenol		2,4-Dimethylphenol		2,4-Dinitrotoluene		2,6-Dichlorophenol	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
IRPMW51-020197-W	2/1/97	<0.5	<1.7	<0.5	<0.6	<0.9	<13	<0.9	<0.7	<0.7	NA				
IRPMW51-042797-W	4/27/97	<0.5	<1.7	<0.5	<0.6	<0.9	<13	<0.9	<0.7	<0.7	<0.6				
IRPMW51-030898-W	3/8/98	<1.5	<1.3	<1.3	<1.2	<1.1	<2.1	<1.1	<1.2	<1.2	NA				
Analyses		3	3	3	3	3	3	3	3	3	1				
Detections		0	0	0	0	0	0	0	0	0	0				
Minimum Concentration		0	0	0	0	0	0	0	0	0	0				
Maximum Concentration		0	0	0	0	0	0	0	0	0	0				
HWAD_-_GW_Action_Level		1100	3700	6.1	110	730	73	73	73	73					
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	0	0	0					

**Semivolatile Organic Compounds**

Sample ID	Sample Date	2,6-Dinitrotoluene		2-Chloronaphthalene		2-Chlorophenol		2-Methylnaphthalene		2-Methylphenol (o-Cresol)		2-Naphthylamine		2-Nitroaniline		2-Nitrophenol	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW51-020197-W	2/1/97	<0.5	<0.8	<0.7	<0.8	<0.5	<0.5	<1	<1	<0.4	<0.8						
IRPMW51-042797-W	4/27/97	<0.5	<0.8	<0.7	<0.8	<0.5	<0.5	<1	<1	<0.4	<0.8						
IRPMW51-030898-W	3/8/98	<1.2	<1.1	<1.2	<1.1	<2.7	<0.82	<1.3	<1.3								
Analyses		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		37	490	38		1800						2.2					
HWAD_-_GW_Action_Level Hits		0	0	0		0						0					

**Semivolatile Organic Compounds**

Sample ID	Sample Date	2-Picoline ug/l	3,3-Dichlorobenzidine ug/l	3-Methylcholanthrene ug/l	3-Nitroaniline ug/l	3/4-Methylphenol (m/p-Cresol) ug/l	4,6-Dinitrophenol-o-cresol ug/l	4-Aminobiphenyl ug/l	4-Bromophenyl phenyl ether ug/l
IRPMW51-020197-W	2/1/97	<0.5	<1.7	NA	<3.8	NA	<2.4	<0.7	<0.6
IRPMW51-042797-W	4/27/97	<0.5	<1.7	<0.6	<3.8	<1	<2.4 <sup>UJ</sup>	<0.7	<0.6
IRPMW51-030898-W	3/8/98	<0.88	<2.4	NA	<1.3	NA	<0.89	<1.6	<1.5
Analyses		3	3	1	3	1	3	3	3
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level			0.15			180			
HWAD_-_GW_Action_Level Hits			0			0			

**Semivolatile Organic Compounds**

Sample ID	Sample Date	Analytical Data (ug/l)							
		4-Chloro-3-methylphenol	4-Chloroaniline	4-Chlorophenyl phenyl ether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol	7,12-Dimethylbenz(a)anthracene	a,a-Dimethylphenethylamine
IRPMW51-020197-W	2/1/97	<0.6	<0.7	<0.7	<1	<1.1	<3.2	<0.8	<2
IRPMW51-042797-W	4/27/97	<0.6	<0.7	<0.7	NA	<1.1	<3.2	<0.8	<2
IRPMW51-030898-W	3/8/98	<1.3	<1.1	<1.2	<2.7	<1.4	<2.2	<1.2	<2.7
Analyses		3	3	3	2	3	3	3	3
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level			150		180				
HWAD_-_GW_Action_Level Hits			0		0				

**Semivolatile Organic Compounds**

Sample ID	Sample Date	Acenaphthene ug/l	Acenaphthylene ug/l	Acetophenone ug/l	Aniline ug/l	Anthracene ug/l	Benzidine ug/l	Benzo(a)anthracene ug/l
IRPMW51-020197-W	2/1/97	<0.7	<0.6	<0.5	<1.1	<0.5	<1.7	<0.8 <sup>UJ</sup>
IRPMW51-042797-W	4/27/97	<0.7	<0.6	<0.5	<1.1	<0.5	<1.7 <sup>UJ</sup>	<0.8
IRPMW51-030898-W	3/8/98	<1.2	<1.2	<1.4	<0.95	<1.4	<0.47	<3
<b>Analyses</b>		3	3	3	3	3	3	3
<b>Detections</b>		0	0	0	0	0	0	0
<b>Minimum Concentration</b>		0	0	0	0	0	0	0
<b>Maximum Concentration</b>		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		370		0.042	12	1800	0.00029	0.1
HWAD_-_GW_Action_Level Hits		0		0	0	0	0	0

Semivolatile Organic Compounds

Sample ID	Sample Date	Benzo(a)pyrene ug/l	Benzo(b)fluoranthene ug/l	Benzo(g,h,i)perylene ug/l	Benzo(k)fluoranthene ug/l	Benzoic acid ug/l	Benzyl alcohol ug/l	bis(2-Chloroethoxy) methane ug/l
IRPMW51-020197-W	2/1/97	<0.7	<0.5	<0.8	<0.9	<3.2 <sup>UJ</sup>	<0.5	<0.8
IRPMW51-042797-W	4/27/97	<0.7	<0.5	<0.8	<0.9 <sup>UJ-</sup>	<3.2 <sup>UJ-</sup>	<0.5	<0.8
IRPMW51-030898-W	3/8/98	<3.1	<2.7	<4.3	<3.3	<1	<1.3	<1.2
Analyses		3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.2	0.2		150000	11000		
HWAD_-_GW_Action_Level Hits		0	0		0	0		

Semivolatile Organic Compounds

Sample ID	Sample Date	bis(2-Chloroethyl) ether ug/l	bis(2-Chloroisopropyl)-ether ug/l	bis(2-Ethylhexyl)-phthalate ug/l	Butyl benzyl phthalate ug/l	Chrysene ug/l	Di-n-Butyl-phthalate ug/l	Di-n-octyl phthalate ug/l	Dibenz(a,h)anthracene ug/l
IRPMW51-020197-W	2/1/97	<0.7	<1.8 <sup>UJ</sup>	<2.4	<0.7	<0.6	<1.3	<0.7	<0.7
IRPMW51-042797-W	4/27/97	<0.7	<1.8	<2.4	<0.7	<0.6	<1.3	<0.7	<0.7
IRPMW51-030898-W	3/8/98	<1.2	<1	<3.5	12	<3.2	<2.7	<2.7	<4.3
Analyses		3	3	3	3	3	3	3	3
Detections		0	0	0	1	0	0	0	0
Minimum Concentration		0	0	0	12	0	0	0	0
Maximum Concentration		0	0	0	12	0	0	0	0
HWAD_-_GW_Action_Level		0.0098	0.27	6	100	0.2	3700	730	0.0092
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	0	0

**Semivolatile Organic Compounds**

Sample ID	Sample Date	Dibenz(a,j)acridine ug/l	Dibenzofuran ug/l	Diethyl phthalate ug/l	Dimethyl phthalate ug/l	Diphenylamine ug/l	Ethyl methanesulfonate ug/l	Fluoranthene ug/l
IRPMW51-020197-W	2/1/97	<0.6	<0.6	<0.7	<0.5	<0.7	<0.8	<0.7
IRPMW51-042797-W	4/27/97	<0.6	<0.6	<0.7	<0.5	<0.7	<0.8	<0.7
IRPMW51-030898-W	3/8/98	<1.9	<1.3	<1.5	<1.5	<1.6	<0.8	<2.4
Analyses		3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		24	29000	370000	910		1500	
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	0

Semivolatile Organic Compounds

Sample ID	Sample Date	Fluorene ug/l	Hexachlorobenzene ug/l	Hexachlorobutadiene ug/l	Hexachlorocyclopentadiene ug/l	Hexachloroethane ug/l	Indeno(1,2,3-c,d)pyrene ug/l	Isophorone ug/l	Methyl methanesulfonate ug/l
IRPMW51-020197-W	2/1/97	<0.7	<0.6	<0.6	<8.2	<0.5	<0.7	<0.6	<0.5
IRPMW51-042797-W	4/27/97	<0.7	<0.6	<0.6	<8.2	<0.5	<0.7	<0.6	<0.5
IRPMW51-030898-W	3/8/98	<1.3	<1.4	<0.95	<4.3 <sup>UJ-</sup>	<0.95	<3.3	<1.4	<1.2
Analyses		3	3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level	240	1	0.86	50	4.8	0.092	71		
HWAD_-_GW_Action_Level Hits	0	0	0	0	0	0	0	0	

**Semivolatile Organic Compounds**

Sample ID	Sample Date	N-Nitroso-di-n-butylamine ug/l	N-Nitroso-di-n-propylamine ug/l	N-Nitrosodimethylamine ug/l	N-Nitrosodiphenylamine ug/l	N-Nitrosopiperidine ug/l	Naphthalene ug/l	Nitrobenzene ug/l
IRPMW51-020197-W	2/1/97	<0.7	<0.6	<0.6	<0.5	<0.6	<0.6	<0.8
IRPMW51-042797-W	4/27/97	<0.7	<0.6	<0.6	<0.5	<0.6	<0.6	<0.8
IRPMW51-030898-W	3/8/98	<1.6	<1.4	<1.6	<1.5	<1.2	<1.1	<1.2
Analyses		3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.002	0.0096	0.0013	14	6.2	3.4	
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	0

**Semivolatile Organic Compounds**

Sample ID	Sample Date	p-Dimethylaminoazobenzene							
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW51-020197-W	2/1/97	<2.3	<1.8	<0.5	<1.8	<0.6	<0.6	<1.9	<2.6
IRPMW51-042797-W	4/27/97	<2.3	<1.8	<0.5	<1.8	<0.6	<0.6	<1.9	<2.6
IRPMW51-030898-W	3/8/98	<0.65	<1.2	<1.7	<9.1	<3.5	<1.6	<1.1	<2.9
Analyses		3	3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		29	0.26	1			22000	2700	
HWAD_-_GW_Action_Level Hits		0	0	0			0	0	

Semivolatile Organic Compounds

Sample ID	Sample Date	Pyrene ug/l
IRPMW51-020197-W	2/1/97	<0.6
IRPMW51-042797-W	4/27/97	<0.6
IRPMW51-030898-W	3/8/98	<2.1
Analyses		3
Detections		0
Minimum Concentration		0
Maximum Concentration		0
HWAD_-_GW_Action_Level		180
HWAD_-_GW_Action_Level Hits		0

**Explosives**

Sample ID	Sample Date	1,3,5-Trinitrobenzene					
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW51-020197-W	2/1/97	<0.1	<0.058	<0.065	<0.018	<0.09	<0.031
IRPMW51-042797-W	4/27/97	<0.1	<0.058	<0.065	<0.018	<0.09	NA
IRPMW51-030898-W	3/8/98	<0.093	<0.09	<0.069	<0.061	<0.12	<0.14
Analyses		3	3	3	3	3	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level		1100	3.7	2.2	73	37	0.099
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0

**Explosives**

Sample ID	Sample Date	2-Nitrotoluene		3-Nitrotoluene		4-Amino-2,6-dinitrotoluene		4-Nitrotoluene		HMX		Nitrobenzene		Picric Acid	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW51-020197-W	2/1/97	<0.13	<0.11	<0.035	<0.13	<0.17	<0.073	<7.1							
IRPMW51-042797-W	4/27/97	<0.13 <sup>UJ</sup>	<0.11	NA	<0.13 <sup>UJ</sup>	<0.17	<0.073	<7.1							
IRPMW51-030898-W	3/8/98	<0.074	<0.16	<0.13	<0.074	<0.11	<0.11	<0.3							
Analyses		3	3	2	3	3	3								
Detections		0	0	0	0	0	0								
Minimum Concentration		0	0	0	0	0	0								
Maximum Concentration		0	0	0	0	0	0								
HWAD_-_GW_Action_Level			370	0.099	370	1800	3.4								1
HWAD_-_GW_Action_Level Hits			0	0	0	0	0								0

**Explosives**

Sample ID	Sample Date	RDX ug/l	Tetryl ug/l
IRPMW51-020197-W	2/1/97	<0.13	<0.066
IRPMW51-042797-W	4/27/97	<0.13	<0.066
IRPMW51-030898-W	3/8/98	<0.078	<0.065
Analyses		3	3
Detections		0	0
Minimum Concentration		0	0
Maximum Concentration		0	0
HWAD_-_GW_Action_Level		0.61	
HWAD_-_GW_Action_Level Hits		0	



### Monitoring Well Evaluation Checklist for Well No. IRPMW52

<b>SWMU / Area</b>	109/10, 111, and 118
<b>Aquifer</b>	WT
<b>Well Condition</b>	Good
<b>Describe Problems</b>	Yes
<b>Purpose of Well</b>	None
<b>Primary</b>	Upgradient of SWMU 109/10
<b>Secondary</b>	Regional groundwater data, downgradient of SWMU 118
<b>Retain for Chemical I Monitoring (list compounds)</b>	VOCs

**Proposed Sample Frequency** Annually

### Analytical Results

Explosive	VOC	SVOC	Sampling Events		Analyses	Detections	Highest Concentration	HWAD GW AL	Exceeds Standard
			Date First Sampled	Date Last Sampled					
		Bis(2-ethylhexyl)phthalate	3/21/97	3/8/98	3	0	ND	--	No
		Butyl benzyl phthalate	3/21/97	3/8/98	3	2	--	--	No
		Nitrogen Compounds	3/21/97	3/8/98	3	1	0.4	19	0
		Ammonia as Nitrogen				1	0.3	1000	0
		Total Kjeldahl Nitrogen				3	0.4	NE	0

ND = Non-detect

NE = Not established

### Water Characteristics

Sample ID	Sample Date	Ammonia as Nitrogen		Calcium, Total ug/l	Iron, Total ug/l	Kjeldahl Nitrogen, Total mg/l	Magnesium, Total ug/l	Potassium, Total ug/l	Sodium, Total ug/l
		mg/l	ug/l						
IRPMW52-020197-W	2/1/97	<0.06	92700	30.4 <sup>J</sup>	0.2 <sup>J</sup>	12600	9660	196000	
IRPMW52-042797-W	4/27/97	<0.06	78300	15.4 <sup>J</sup>	0.4	11600	10800	179000	
IRPMW52-030898-W	3/8/98	0.1 <sup>J</sup>	81000	<2.7	0.2 <sup>J</sup>	12100	9950 <sup>E</sup>	197000	
Analyses		3	3	3	3	3	3	3	3
Detections		1	3	2	3	3	3	3	3
Minimum Concentration		0.1	78300	15.4	0.2	11600	9660	179000	
Maximum Concentration		0.1	92700	30.4	0.4	12600	10800	197000	
HWAD_-_GW_Action_Level				11000					
HWAD_-_GW_Action_Level Hits				0					

## Water Characteristics

Sample ID	Sample Date	Solids, Total Dissolved mg/l
IRPMW52-020197-W	2/1/97	951
IRPMW52-042797-W	4/27/97	952
IRPMW52-030898-W	3/8/98	NA
Analyses		2
Detections		2
Minimum Concentration		951
Maximum Concentration		952
HWAD_-_GW_Action_Level		
HWAD_-_GW_Action_Level Hits		

## Nitrogen Compounds

Sample ID	Sample Date	Ammonia as Nitrogen mg/l	Kjeldahl Nitrogen, Total mg/l
IRPMW52-020197-W	2/1/97	<0.06	0.2 <sup>J</sup>
IRPMW52-042797-W	4/27/97	<0.06	0.4
IRPMW52-030898-W	3/8/98	0.1 <sup>J</sup>	0.2 <sup>J</sup>
Analyses		3	3
Detections		1	3
Minimum Concentration		0.1	0.2
Maximum Concentration		0.1	0.4
HWAD_-_GW_Action_Level			
HWAD_-_GW_Action_Level Hits			

**Total Metals**

Sample ID	Sample Date	Arsenic, Total		Barium, Total		Beryllium, Total		Cadmium, Total		Chromium, Total		Lead, Total		Mercury, Total		Selenium, Total	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
IRPMW52-020197-W	2/1/97	<1.2	NA	<0.2	<0.1	3.9 <sup>J</sup>	3.8 <sup>J</sup>	<0.15	<2.3								
IRPMW52-042797-W	4/27/97	2.9 <sup>J</sup>	NA	0.31 <sup>J</sup>	<0.1	2.1 <sup>J</sup>	<0.6	<0.15	6.1								
IRPMW52-030898-W	3/8/98	2.3 <sup>J</sup>	33.1	NA	<0.51	2.8 <sup>J</sup>	1.7 <sup>J</sup>	<0.16	2.5 <sup>J</sup>								
Analyses		3	1	2	3	3	3	3	3								
Detections		2	1	1	0	3	2	0	2								
Minimum Concentration		2.3	33.1	0.31	0	2.1	1.7	0	2.5								
Maximum Concentration		2.9	33.1	0.31	0	3.9	3.8	0	6.1								
HWAD_-_GW_Action_Level		50	2000	4	5	100	15	2	180								
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	0	0								

Total Metals

Sample ID	Sample Date	Silver, Total ug/l
IRPMW52-020197-W	2/1/97	<1.1
IRPMW52-042797-W	4/27/97	<1.1
IRPMW52-030898-W	3/8/98	<1
Analyses		3
Detections		0
Minimum Concentration		0
Maximum Concentration		0
HWAD_-_GW_Action_Level		180
HWAD_-_GW_Action_Level Hits		0

### Dissolved Metals

Sample ID	Sample Date	Arsenic, Dissolved		Barium, Dissolved		Beryllium, Dissolved		Cadmium, Dissolved		Chromium, Dissolved		Lead, Dissolved		Mercury, Dissolved		Selenium, Dissolved	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
IRPMW52-020197-W	2/1/97	<1.2	NA	<0.2	<0.1	2.1 <sup>J</sup>	<0.6	<0.15	3.3 <sup>J</sup>								
IRPMW52-042797-W	4/27/97	2.6 <sup>J</sup>	NA	<0.2	<0.1	1.8 <sup>J</sup>	<0.6	<0.15	4.8 <sup>J</sup>								
IRPMW52-030898-W	3/8/98	3.2 <sup>J</sup>	33.1	NA	<0.51	1.8 <sup>J</sup>	1	<0.16	<2								
Analyses		3	1	2	3	3	3	3	3								
Detections		2	1	0	0	3	1	0	2								
Minimum Concentration		2.6	33.1	0	0	1.8	1	0	3.3								
Maximum Concentration		3.2	33.1	0	0	2.1	1	0	4.8								
HWAD_-_GW_Action_Level		50		4	5	100	15	2	180								
HWAD_-_GW_Action_Level Hits		0		0	0	0	0	0	0								

Dissolved Metals

Sample ID	Sample Date	Silver, Dissolved ug/l
IRPMW52-020197-W	2/1/97	<1.1
IRPMW52-042797-W	4/27/97	<1.1
IRPMW52-030898-W	3/8/98	0.54 <sup>J</sup>
Analyses		3
Detections		1
Minimum Concentration		0.54
Maximum Concentration		0.54
HWAD_-_GW_Action_Level		180
HWAD_-_GW_Action_Level Hits		0

**Pesticides**

Sample ID	Sample Date	2,4,5-T	2,4,5-TP (Silvex)	2,4-D	2,4-DB	4,4-DDD	4,4-DDE
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW52-020197-W	2/1/97	<0.039	<0.009	<0.009	<0.014	<0.03	<0.02
IRPMW52-042797-W	4/27/97	<0.039	<0.009	<0.009	<0.014	NA	<0.022
IRPMW52-030898-W	3/8/98	NA	NA	NA	NA	NA	NA
Analyses		2	2	2	2	1	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level		370	50	70	290	0.28	0.2
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0

**Pesticides**

Sample ID	Sample Date	4,4-DDT ug/l	Aldrin ug/l	alpha-BHC ug/l	beta-BHC ug/l	Chlordane ug/l	Dalapon ug/l
IRPMW52-020197-W	2/1/97	<0.03	<0.03	<0.02	<0.01	<0.27	<0.029
IRPMW52-042797-W	4/27/97	<0.032	<0.026	<0.018	<0.013	<0.05	<0.029
IRPMW52-030898-W	3/8/98	NA	NA	NA	NA	NA	NA
 Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
 HWAD_-_GW_Action_Level		0.2	0.004	0.011	0.037	2	200
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0

Pesticides

Sample ID	Sample Date	delta-BHC ug/l	Dicamba ug/l	Dichloroprop ug/l	Dieldrin ug/l	Dinoseb ug/l	Endosulfan I ug/l
IRPMW52-020197-W	2/1/97	<0.01	<0.008	<0.01	<0.03	<0.027	<0.04
IRPMW52-042797-W	4/27/97	<0.011	<0.008	<0.01	<0.027	<0.027	<0.038
IRPMW52-030898-W	3/8/98	NA	NA	NA	NA	NA	NA
Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level			1100		0.0042	7	220
HWAD_-_GW_Action_Level Hits				0	0	0	0

**Pesticides**

Sample ID	Sample Date	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	gamma-BHC (Lindane)
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW52-020197-W	2/1/97	<0.03	<0.14	<0.008	<0.03	<0.02	<0.02
IRPMW52-042797-W	4/27/97	<0.025	<0.14	<0.008	<0.028	<0.02	<0.017
IRPMW52-030898-W	3/8/98	NA	NA	NA	NA	NA	NA
Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level				2			0.2
HWAD_-_GW_Action_Level Hits				0			0

Pesticides

Sample ID	Sample Date	Heptachlor	Heptachlor epoxide	MCPA	MCPP	Methoxychlor	Toxaphene
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW52-020197-W	2/1/97	<0.02	<0.009	<1	<1	<0.03	<0.29
IRPMW52-042797-W	4/27/97	<0.024	<0.009	<1 <sup>UJ</sup>	<1 <sup>UJ</sup>	<0.026	<0.29
IRPMW52-030898-W	3/8/98	NA	NA	NA	NA	NA	NA
Analyses		2	2	2	2	2	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.4	0.2	18	37	40	3
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0

**Volatile Organic Compounds**

Sample ID	Sample Date	1,1,1,2-Tetrachloroethane							
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW52-020197-W	2/1/97	<0.2	<0.2	<0.2	<0.2	<0.3	<0.3	<0.3	<0.3
IRPMW52-042797-W	4/27/97	<0.1	<0.1	<0.2	<0.2	<0.1	<0.7	<0.1	<0.1
IRPMW52-030898-W	3/8/98	<0.35	<0.36	<0.38	<0.36	<0.22	<0.34	<0.28	
Analyses		3	3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.43	200	0.055	5	810	7		
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0		

**Volatile Organic Compounds**

Sample ID	Sample Date	VOCs Detected							
		1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Tribromoethane (EDB)	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW52-020197-W	2/1/97	<0.4	<0.8	<0.4	<0.2	<0.3	<0.2	<0.8	
IRPMW52-042797-W	4/27/97	<0.5	<0.2	<0.3	<0.1	<0.2	<0.4	<0.2	
IRPMW52-030898-W	3/8/98	<0.3	<0.31	<0.3	<0.31	<0.31	<0.36	<0.36	
Analyses		3	3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.0016	70	12	0.05	600	5		
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	0	0

**Volatile Organic Compounds**

Sample ID	Sample Date	VOC Concentrations (ug/l)						
		1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Chlorotoluene
IRPMW52-020197-W	2/1/97	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
IRPMW52-042797-W	4/27/97	<0.1	<0.1	<0.2	<0.1	<0.2	<0.8	<0.2
IRPMW52-030898-W	3/8/98	<0.22	<0.38	<0.38	<0.36	<0.3	<0.31	<0.3
Analyses		3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		5		17		75		120
HWAD_-_GW_Action_Level Hits		0		0		0		0

**Volatile Organic Compounds**

Sample ID	Sample Date	4-Chlorotoluene		4-Isopropyltoluene		Benzene		Bromobenzene		Bromoform	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW52-020197-W	2/1/97	<0.3	<0.2	<0.2	<0.2	<0.3	<0.5	<0.2	<0.4		
IRPMW52-042797-W	4/27/97	<0.2	<0.3	<0.2	<0.2	<0.1	<0.2	<0.1	<0.2		
IRPMW52-030898-W	3/8/98	<0.4	<0.36	<0.36	<0.36	<0.31	<0.47	<0.34	<0.35		
Analyses		3	3	3	3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level					5			100	100		
HWAD_-_GW_Action_Level Hits					0			0	0		

**Volatile Organic Compounds**

Sample ID	Sample Date	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW52-020197-W	2/1/97	<0.2	<0.2	<0.3	<0.2	<0.2	<0.2	<0.2
IRPMW52-042797-W	4/27/97	<0.2 <sup>uj</sup>	<0.1 <sup>uj</sup>	<0.1	<0.2	<0.1	<0.2	<0.2
IRPMW52-030898-W	3/8/98	<0.96	<0.35	<0.26	<0.57	<0.38	<0.72	<0.28
Analyses		3	3	3	3	3	3	3
Detectors		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		8.7	5	100		100	1.5	70
HWAD_-_GW_Action_Level Hits		0	0	0		0	0	0

**Volatile Organic Compounds**

Sample ID	Sample Date	cis-1,3-Dichloropropene		Dibromochloromethane		Dibromopropane		Dibromomethane		Dichlorodifluoromethane		Ethylbenzene		Hexachlorobutadiene	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW52-020197-W	2/1/97	NA	<0.2	<0.9	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	<0.4				
IRPMW52-042797-W	4/27/97	<0.2	<0.1	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.2	<0.3				
IRPMW52-030898-W	3/8/98	<0.22	<0.28	<0.63	<0.31	<0.47	<0.47	<0.36	<0.36						
Analyses		2	3	3	3	3	3	3	3	3	3				
Detections		0	0	0	0	0	0	0	0	0	0				
Minimum Concentration		0	0	0	0	0	0	0	0	0	0				
Maximum Concentration		0	0	0	0	0	0	0	0	0	0				
HWAD_-_GW_Action_Level			100	0.2			390	700	0.86						
HWAD_-_GW_Action_Level Hits			0	0			0	0	0						

**Volatile Organic Compounds**

Sample ID	Sample Date	Isopropylbenzene		Methylene chloride		MTBE		n-Butylbenzene		n-Propylbenzene		Naphthalene		sec-Butylbenzene	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
IRPMW52-020197-W	2/1/97	0.4	<0.4	<0.5	<0.2	<0.3	<0.3	<0.4	<0.2						
IRPMW52-042797-W	4/27/97	<0.2	<0.7	<2.1	<0.3	<0.2	<0.2	<0.8	<0.2						
IRPMW52-030898-W	3/8/98	<0.36	<0.6	<0.49	<0.22	<0.3	<0.3	<0.22	<0.4						
Analyses		3	3	3	3	3	3	3	3	3	3	3	3		
Detections		1	0	0	0	0	0	0	0	0	0	0	0		
Minimum Concentration		0.4	0	0	0	0	0	0	0	0	0	0	0		
Maximum Concentration		0.4	0	0	0	0	0	0	0	0	0	0	0		
HWAD_-_GW_Action_Level		19	5	20						6.2					
HWAD_-_GW_Action_Level Hits		0	0	0						0					

Volatile Organic Compounds

Sample ID	Sample Date	Styrene ug/l	tert-Butylbenzene ug/l	Tetrachloroethene ug/l	Toluene ug/l	trans-1,2-Dichloroethene ug/l	trans-1,3-Dichloropropene ug/l	Trichloroethene ug/l
IRPMW52-020197-W	2/1/97	<0.2	<0.2	<0.3	0.3	<0.3	NA	<0.3
IRPMW52-042797-W	4/27/97	<0.1	<0.3	<0.1	<0.1	<0.2	<0.2	<0.1
IRPMW52-030898-W	3/8/98	<0.36	<0.3	<0.36	<0.97	<0.35	<0.36	<0.36
Analyses		3	3	3	3	3	2	3
Detections		0	0	0	1	0	0	0
Minimum Concentration		0	0	0	0.3	0	0	0
Maximum Concentration		0	0	0	0.3	0	0	0
HWAD_-_GW_Action_Level		100		5	1000	100	0.081	5
HWAD_-_GW_Action_Level Hits		0		0	0	0	0	0

**Volatile Organic Compounds**

Sample ID	Sample Date	Trichlorofluoromethane			
		ug/l	Vinyl chloride	Xylenes-m&p	Xylene-o
IRPMW52-020197-W	2/1/97	<0.2	<0.2	<0.5	<0.2
IRPMW52-042797-W	4/27/97	<0.1	<0.1	<0.2	<0.1
IRPMW52-030898-W	3/8/98	<0.31	<0.38	NA	<0.34
Analyses		3	3	2	3
Detections		0	0	0	0
Minimum Concentration		0	0	0	0
Maximum Concentration		0	0	0	0
HWAD_-_GW_Action_Level		1300		10000	10000
HWAD_-_GW_Action_Level Hits		0		0	0

**Semivolatile Organic Compounds**

Sample ID	Sample Date	1,2,4,5-Tetrachlorobenzene							
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW52-020197-W	2/1/97	<1.4	<0.8	<0.7	<0.5	<0.5	<0.6	<3.4	<0.7
IRPMW52-042797-W	4/27/97	<1.4	<0.8	<0.7	<0.5	<0.5	<0.6	<3.4	<0.7 <sup>UJ</sup>
IRPMW52-030898-W	3/8/98	<1.6	<1.6	<1.6	<0.54	<1.5	<1.4	<1.2	<2.4
Analyses		3	3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		11	70	600	0.084	17	75		
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0		

**Semivolatile Organic Compounds**

Sample ID	Sample Date	Concentration (ug/l)							
		2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dichlorophenol
IRPMW52-020197-W	2/1/97	<0.5	<1.7	<0.5	<0.6	<0.9	<13	<0.7	NA
IRPMW52-042797-W	4/27/97	<0.5	<1.7	<0.5	<0.6	<0.9	<13	<0.7	<0.6
IRPMW52-030898-W	3/8/98	<1.7	<1.4	<1.7	<1.6	<1.4	<12	<1.7	NA
Analyses		3	3	3	3	3	3	3	1
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		1100	3700	6.1	110	730	73	73	
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0	0	

**Semivolatile Organic Compounds**

Sample ID	Sample Date	2,6-Dinitrotoluene		2-Chloronaphthalene		2-Chlorophenol		2-Methylnaphthalene		2-Methylphenol (o-Cresol)		2-Naphthylamine		2-Nitroaniline		2-Nitrophenol	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW52-020197-W	2/1/97	<0.5	<0.8	<0.7	<0.8	<0.5	<1	<0.4	<0.8								
IRPMW52-042797-W	4/27/97	<0.5	<0.8	<0.7	<0.8	<0.5	<1 <sup>UJ</sup>	<0.4	<0.8								
IRPMW52-030898-W	3/8/98	<1.7	<1.5	<1.3	<1.1	<2.3	<2.1	<1.5	<1.3								
Analyses		3	3	3	3	3	3	3	3								3
Detections		0	0	0	0	0	0	0	0								0
Minimum Concentration		0	0	0	0	0	0	0	0								0
Maximum Concentration		0	0	0	0	0	0	0	0								0
HWAD_-_GW_Action_Level		37	490	38		1800										2.2	
HWAD_-_GW_Action_Level Hits		0	0	0		0										0	

**Semivolatile Organic Compounds**

Sample ID	Sample Date	2-Picoline ug/l	3,3-Dichlorobenzidine ug/l	3-Methylcholanthrene ug/l	3-Nitroaniline ug/l	3/4-Methylphenol (m/p-Cresol) ug/l	4,6-Dinitrophenol-o-cresol ug/l	4-Aminobiphenyl ug/l	4-Bromophenyl phenyl ether ug/l
IRPMW52-020197-W	2/1/97	<0.5	<1.7	NA	<3.8	NA	<2.4	<0.7	<0.6
IRPMW52-042797-W	4/27/97	<0.5	<1.7	<0.6	<3.8	<1	<2.4	<0.7	<0.6
IRPMW52-030898-W	3/8/98	<1.3	<2.7	NA	<1.8	NA	<2.9	<1.5	<0.61
Analyses		3	3	1	3	1	3	3	3
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level			0.15			180			
HWAD_-_GW_Action_Level Hits			0			0			

**Semivolatile Organic Compounds**

Sample ID	Sample Date	4-Chloro-3-methylphenol	4-Chloroaniline	4-Chlorophenyl phenyl ether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol	7,12-Dimethylbenz(a)anthracene	a,a-Dimethylphenethylamine
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW52-020197-W	2/1/97	<0.6	<0.7	<0.7	<1	<1.1	<3.2	<0.8	<2
IRPMW52-042797-W	4/27/97	<0.6	<0.7	<0.7	NA	<1.1	<3.2	<0.8	<2
IRPMW52-030898-W	3/8/98	<1.6	<0.63	<1.3	<2.3	<2	<1.9	<2.7	<3.5
Analyses		3	3	3	2	3	3	3	3
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level			150		180				
HWAD_-_GW_Action_Level Hits			0		0				

**Semivolatile Organic Compounds**

Sample ID	Sample Date	Acenaphthene ug/l	Acenaphthylene ug/l	Acetophenone ug/l	Aniline ug/l	Anthracene ug/l	Benzidine ug/l	Benzo(a)anthracene ug/l	Benzo(a)pyrene ug/l
IRPMW52-020197-W	2/1/97	<0.7	<0.6	<0.5	<1.1	<0.5	<1.7	<0.8 <sup>UJ</sup>	<0.7
IRPMW52-042797-W	4/27/97	<0.7	<0.6	<0.5	<1.1	<0.5	<1.7 <sup>UJ</sup>	<0.8	<0.7
IRPMW52-030898-W	3/8/98	<1.6	<1.4	<1.3	<1.5	<0.8	<2.1	<0.6	<2.5
Analyses		3	3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		370		0.042	12	1800	0.00029	0.1	0.2
HWAD_-_GW_Action_Level Hits		0		0	0	0	0	0	0

Semivolatile Organic Compounds

Sample ID	Sample Date	Benzo(b)fluoranthene ug/l	Benzo(g,h,i)perylene ug/l	Benzo(k)fluoranthene ug/l	Benzoic acid ug/l	Benzyl alcohol ug/l	bis(2-Chloroethoxy) methane ug/l	bis(2-Chloroethyl) ether ug/l
IRPMW52-020197-W	2/1/97	<0.5	<0.8	<0.9	<3.2 <sup>UJ</sup>	<0.5	<0.8	<0.7
IRPMW52-042797-W	4/27/97	<0.5	<0.8	<0.9 <sup>UJ</sup>	<3.2 <sup>UJ</sup>	<0.5	<0.8	<0.7
IRPMW52-030898-W	3/8/98	<0.69	<2.6	<0.69	<2.7	<1	<1.6	<1.9
Analyses		3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.2		150000	11000		0.0098	
HWAD_-_GW_Action_Level Hits		0		0	0		0	

# Semivolatile Organic Compounds

Sample ID	Sample Date	Concentration (ug/l)							
		bis(2-Chloroisopropyl)-ether	bis(2-Ethylhexyl)-phthalate	Butyl benzyl phthalate	Chrysene	Di-n-Butyl-phthalate	Di-n-octyl phthalate	Dibenz(a,h)anthracene	Dibenz(a,i)acridine
IRPMW52-020197-W	2/1/97	<1.8 <sup>UJ</sup>	<2.4	<0.7	<0.6	<1.3	<0.7	<0.7	<0.6
IRPMW52-042797-W	4/27/97	<1.8	<2.4	<0.7	<0.6	<1.3	<0.7	<0.7	<0.6
IRPMW52-030898-W	3/8/98	<2.3	7 <sup>J</sup>	8 <sup>J</sup>	<0.5	<1	<2.8	<2.6	<2.4
Analyses		3	3	3	3	3	3	3	3
Detections		0	1	1	0	0	0	0	0
Minimum Concentration		0	7	8	0	0	0	0	0
Maximum Concentration		0	7	8	0	0	0	0	0
HWAD_-_GW_Action_Level		0.27	6	100	0.2	3700	730	0.0092	
HWAD_-_GW_Action_Level Hits		0	1	0	0	0	0	0	

Semivolatile Organic Compounds

Sample ID	Sample Date	Dibenzofuran ug/l	Diethyl phthalate ug/l	Dimethyl phthalate ug/l	Diphenylamine ug/l	Ethyl methanesulfonate ug/l	Fluoranthene ug/l	Fluorene ug/l	Hexachlorobenzene ug/l
IRPMW52-020197-W	2/1/97	<0.6	<0.7	<0.5	<0.7	<0.8	<0.7	<0.7	<0.6
IRPMW52-042797-W	4/27/97	<0.6	<0.7	<0.5	<0.7	<0.8	<0.7	<0.7	<0.6
IRPMW52-030898-W	3/8/98	<1.5	<1.5	<1.5	<1.5	<0.8	<1.2	<1.2	<1.3
Analyses		3	3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0	0
HWAD_-_GW_Action_Level	24	29000	370000	910		1500	240		1
HWAD_-_GW_Action_Level Hits		0	0	0	0		0	0	0

**Semivolatile Organic Compounds**

Sample ID	Sample Date	Hexachlorobutadiene ug/l	Hexachlorocyclopentadiene ug/l	Hexachloroethane ug/l	Indeno(1,2,3-c,d)pyrene ug/l	Isophorone ug/l	Methyl methanesulfonate ug/l	N-Nitroso-di-n-butylamine ug/l
IRPMW52-020197-W	2/1/97	<0.6	<8.2	<0.5	<0.7	<0.6	<0.5	<0.7
IRPMW52-042797-W	4/27/97	<0.6	<8.2	<0.5	<0.7	<0.6	<0.5	<0.7
IRPMW52-030898-W	3/8/98	<1.4	<8.5	<1.5	<2.7	<1.6	<1.4	<1.4
Analyses		3	3	3	3	3	3	3
Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
HWAD_-_GW_Action_Level		0.86	50	4.8	0.092	71		0.002
HWAD_-_GW_Action_Level Hits		0	0	0	0	0		0

# Semivolatile Organic Compounds

Sample ID	Sample Date	N-Nitroso-di-n-propylamine		N-Nitrosodimethylamine		N-Nitrosodiphenylamine		N-Nitrosopiperidine		Naphthalene		Nitrobenzene		p-Dimethylaminoazobenzene	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW52-020197-W	2/1/97	<0.6	<0.6	<0.5	<0.6	<0.6	<0.6	<0.6	<0.6	<0.8	<0.8	<2.3			
IRPMW52-042797-W	4/27/97	<0.6	<0.6	<0.5	<0.6	<0.6	<0.6	<0.6	<0.6	<0.8	<0.8	<2.3			
IRPMW52-030898-W	3/8/98	<1.3	<1.4	<1.6	<1.5	<1.4	<1.4	<1.4	<1.4	<0.94	<0.94	<0.65			
Analyses		3	3	3	3	3	3	3	3	3	3	3			
Detections		0	0	0	0	0	0	0	0	0	0	0			
Minimum Concentration		0	0	0	0	0	0	0	0	0	0	0			
Maximum Concentration		0	0	0	0	0	0	0	0	0	0	0			
HWAD_-_GW_Action_Level		0.0096	0.0013	14		6.2	3.4								
HWAD_-_GW_Action_Level Hits		0	0	0		0	0								

# Semivolatile Organic Compounds

Sample ID	Sample Date	Pentachlorobenzene		Pentachloronitrobenzene		Pentachlorophenol		Phenacetin		Phenanthrene		Phenol		Pronamide		Pyrene	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
IRPMW52-020197-W	2/1/97	<1.8	<0.5	<1.8	<0.6	<0.6	<0.6	<1.9	<2.6	<0.6	<1.9	<1.7	<1.6	<0.54	<0.6	<0.6	
IRPMW52-042797-W	4/27/97	<1.8	<0.5	<1.8	<0.6	<0.6	<0.6	<1.9	<2.6	<0.6	<1.9	<1.7	<1.6	<0.54	<0.6	<0.6	
IRPMW52-030898-W	3/8/98	<1.6	<3.3	<15	<0.99	<1	<1	<1.7	<1.6	<0.54	<1.7	<1.6	<0.54	<0.6	<0.6	<0.6	
Analyses		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
Detections		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Minimum Concentration		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Maximum Concentration		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
HWAD_-_GW_Action_Level		29	0.26	1				22000	2700	180							
HWAD_-_GW_Action_Level Hits		0	0	0				0	0	0							

## Semivolatile Organic Compounds

Sample ID	Sample Date
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IRPMW52-020197-W	2/1/97
IRPMW52-042797-W	4/27/97
IRPMW52-030898-W	3/8/98

Analyses  
Detections  
Minimum Concentration  
Maximum Concentration

HWAD\_-\_GW\_Action\_Level  
HWAD\_-\_GW\_Action\_Level Hits

**Explosives**

Sample ID	Sample Date	1,3,5-Trinitrobenzene					
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IRPMW52-020197-W	2/1/97	<0.1	<0.058	<0.065	<0.018	<0.09	<0.031
IRPMW52-042797-W	4/27/97	<0.1	<0.058	<0.065	<0.018	<0.09	NA
IRPMW52-030898-W	3/8/98	<0.093	<0.09	<0.069	<0.061	<0.12	<0.14
Analyses		3	3	3	3	3	2
Detections		0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0
HWAD_-_GW_Action_Level		1100	3.7	2.2	73	37	0.099
HWAD_-_GW_Action_Level Hits		0	0	0	0	0	0

**Explosives**

Sample ID	Sample Date	2-Nitrotoluene		3-Nitrotoluene		4-Amino-2,6-dinitrotoluene		4-Nitrotoluene		HMX		Nitrobenzene		Picric Acid	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
IRPMW52-020197-W	2/1/97	<0.13	<0.11	<0.035	<0.13	<0.17	<0.073	<7.1							
IRPMW52-042797-W	4/27/97	<0.13 <sup>UJ-</sup>	<0.11	NA	<0.13 <sup>UJ-</sup>	<0.17	<0.073	<7.1							
IRPMW52-030898-W	3/8/98	<0.074	<0.16	<0.13	<0.074	<0.11	<0.11	<0.3							
Analyses		3	3	2	3	3	3	3							
Detections		0	0	0	0	0	0	0							
Minimum Concentration		0	0	0	0	0	0	0							
Maximum Concentration		0	0	0	0	0	0	0							
HWAD_-_GW_Action_Level			370	0.099	370	1800	3.4	1							
HWAD_-_GW_Action_Level Hits			0	0	0	0	0	0							

**Explosives**

Sample ID	Sample Date	RDX ug/l	Tetryl ug/l
IRPMW52-020197-W	2/1/97	<0.13	<0.066
IRPMW52-042797-W	4/27/97	<0.13	<0.066
IRPMW52-030898-W	3/8/98	<0.078	<0.065
Analyses		3	3
Detections		0	0
Minimum Concentration		0	0
Maximum Concentration		0	0
HWAD_-_GW_Action_Level		0.61	
HWAD_-_GW_Action_Level Hits		0	



**Nitrogen Compounds**  
 USEPA Methods 350.2, 353.1, 353.3 (APCL)

Sample ID	Location ID	Sample Date	Depth	mg/l Total Kjeldahl Nitrogen	mg/l Ammonia as Nitrogen	mg/l Nitrate plus Nitrite
IRPMW49-021800-W	IRPMW49	2/18/2000	235.6	0.41	0.3 <sup>J</sup>	NA
IRPMW49-051800-W	IRPMW49	5/18/2000	235.6	0.3	0.2 <sup>J</sup>	0.04 <sup>J</sup>
IRPMW49-081600-W	IRPMW49	8/16/2000	235	0.43	0.2 <sup>J</sup>	0.84
IRPMW49-111500-W	IRPMW49	11/15/2000	210	0.4	0.3	0.26
IRPMW50-021800-W	IRPMW50	2/18/2000	183	0.44	0.2 <sup>J</sup>	NA
IRPMW50-051800-W	IRPMW50	5/18/2000	183.2	0.2 <sup>J</sup>	0.09 <sup>J</sup>	0.78
IRPMW50-081600-W	IRPMW50	8/16/2000	183	0.3	0.2 <sup>J</sup>	0.72
IRPMW50-111500-W	IRPMW50	11/15/2000	185	0.3	0.09 <sup>J</sup>	1.3
IRPMW51-021800-W	IRPMW51	2/18/2000	243.7	0.4	0.2 <sup>J</sup>	NA
IRPMW52-021800-W	IRPMW52	2/18/2000	205	0.1 <sup>J</sup>	0.08 <sup>J</sup>	NA
Analyses				10	10	6
Detections				10	10	6
Minimum Concentration				0.1	0.08	0.04
Maximum Concentration				0.44	0.3	1.3
HWAD -- GW_Action_Level						1
HWAD -- GW_Action_Level Hits						1

**Metals**  
USEPA Methods 6010A and 7470A (APCL)

Sample ID	Location ID	Sample Date	Depth	µg	Chromium, Total	µg	Beryllium, Total	µg	Arsenicic, Total	µg	Cadmium, Total	µg	Chromium, Total	µg	Selenium, Total	µg	Silver, Total	µg	Barium, Total	µg
IRPMW49-021800-W	IRPMW49	2/18/2000	235.6	11.8	NA	0.4	4.8	<1.3	<0.2	<2	<1.1	21.2								
IRPMW50-021800-W	IRPMW50	2/18/2000	183	2.8	NA	0.25	6.2	<1.3	<0.2	<2	<1.1	27.4								
IRPMW51-021800-W	IRPMW51	2/18/2000	243.7	3.6	NA	<0.24	5.7	<1.3	<0.2	<2	<1.1	30.2								
IRPMW52-021800-W	IRPMW52	2/18/2000	205	3.3	NA	<0.24	77.8	<1.3	<0.2	<2	<1.1	31.4								
<b>Analyses</b>		4	0	4	4	4	4	4	4	4	4	4								
<b>Detections</b>		4	0	2	4	0	0	0	0	0	0	0								
<b>Minimum Concentration</b>		2.8	0	0.25	4.8	0	0	0	0	0	0	0								
<b>Maximum Concentration</b>		11.8	0	0.4	77.8	0	0	0	0	0	0	0								
<b>HWAD - GW Action Level</b>		50	4	5	100	15	2	180	180	2000	0	0								
<b>HWAD - GW Action Level Hits</b>		0	0	0	0	0	0	0	0	0	0	0								

Cations  
USEPA Methods 6010A and 7470A (APCL)

Sample ID	Location ID	Sample Date	Depth	µg/L Calcium, Total	µg/L Iron, Total	µg/L Magnesium, Total	µg/L Potassium, Total	µg/L Sodium, Total
IRPMW49-021800-W	IRPMW49	2/18/2000	235.6	81500	15.7	12400	13400	196000
IRPMW50-021800-W	IRPMW50	2/18/2000	183	91700	19.2	13400	11500	197000
IRPMW51-021800-W	IRPMW51	2/18/2000	243.7	81700	148	11700	10400	187000
IRPMW52-021800-W	IRPMW52	2/18/2000	205	90400	1110	12900	11800	197000
Analyses								
Detections								
Minimum Concentration								
Maximum Concentration								
HWAD -- GW_Action_Level								
HWAD -- GW_Action_Level_Hits								
				11000	0			

**Dissolved Metals**  
USEPA Methods 6010A and 7470A (APCL)

Sample ID	Location ID	Depth	Sample Date	Arsenic, Dissolved /ug	Beryllium, Dissolved /ug	Cadmium, Dissolved /ug	Chromium, Dissolved /ug	Lead, Dissolved /ug	Silver, Dissolved /ug	Selenium, Dissolved /ug	Mercury, Dissolved /ug	Barium, Dissolved /ug
IRPMW49-021800-W	IRPMW49	2/18/2000	235.6	12.9	NA	0.27	3.6	<1.3	0.24	<2	<1.1	19.8
IRPMW50-021800-W	IRPMW50	2/18/2000	183	3.8	NA	<0.24	3.7	<1.3	<0.2	<2	<1.1	26.3
IRPMW51-021800-W	IRPMW51	2/18/2000	243.7	3.8	NA	<0.24	3.6	<1.3	<0.2	<2	<1.1	25.4
IRPMW52-021800-W	IRPMW52	2/18/2000	205	4.6	NA	1.5	5.7	<1.3	<0.2	<2	<1.1	22.8
Analyses												
Detections												
Minimum Concentration	3.8	0	0	2	4	0	1	0	0	0	0	19.8
Maximum Concentration	12.9	0	0	0.27	3.6	0	0.24	0	0	0	0	26.3
HWAD_GW_Action_Level												
HWAD_GW_Action_Level_Hits	50	4	5	100	15	2	180	180	2000	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0

Volatile Organic Compounds  
USEPA Method 8260A (APCL)

Sample ID	Location ID	Depth	Sample Date		1,1,2-Tetrachloroethane		1,1,1,2-Tetrachloroethane		1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloropropane		1,2,3-Trichloropropane		1,2,4-Trimethylbenzene		1,2-Dibromoethane (EDB)		1,2-Dichlorobenzene	
			1/gm	1/gm	1/gm	1/gm	1/gm	1/gm	1/gm	1/gm	1/gm	1/gm	1/gm	1/gm	1/gm	1/gm	1/gm	1/gm	1/gm	1/gm	1/gm	1/gm
IRPMW49-021800-W	IRPMW49	2/18/2000	235.6	<0.45	<0.19	<0.27	<0.25	<0.23	<0.32	<0.27	<0.32	<0.62	<0.36	<1.5	<0.24	<0.22	<0.24	<0.25	<0.31	<0.19	<0.25	
IRPMW49-051800-W	IRPMW49	5/18/2000	235.6	<0.26	<0.12	<0.24	<0.88	<0.17	<0.76	<0.28	<0.3	<1.2	<0.22	<0.31	<0.25	<0.25	<0.24	<0.24	<0.36	<1.5	<0.24	
IRPMW49-081600-W	IRPMW49	8/16/2000	235	<0.45	<0.19	<0.27	<0.25	<0.23	<0.32	<0.27	<0.32	<0.62	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	
IRPMW49-111500-W	IRPMW49	11/15/2000	210	<0.092	<0.047	<0.065	<0.078	<0.056	<0.038	<0.054	<0.14	<0.11	<0.12	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	
IRPMW50-021800-W	IRPMW50	2/18/2000	183	<0.45	<0.19	<0.27	<0.25	<0.23	<0.32	<0.27	<0.32	<0.62	<0.36	<1.5	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.22	
IRPMW50-051800-W	IRPMW50	5/18/2000	183.2	<0.26	<0.12	<0.24	<0.88	<0.17	<0.76	<0.28	<0.3	<1.2	<0.22	<0.31	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	
IRPMW50-081600-W	IRPMW50	8/16/2000	183	<0.45	<0.19	<0.27	<0.25	<0.23	<0.32	<0.27	<0.32	<0.62	<0.36	<1.5	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.22	
IRPMW50-111500-W	IRPMW50	11/15/2000	185	<0.092	<0.047	<0.065	<0.078	<0.056	<0.038	<0.054	<0.14	<0.11	<0.12	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	
IRPMW51-021800-W	IRPMW51	2/18/2000	243.7	<0.45	<0.19	<0.27	<0.25	<0.23	<0.32	<0.27	<0.32	<0.62	<0.36	<1.5	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.22	
IRPMW52-021800-W	IRPMW52	2/18/2000	205	<0.45	<0.19	<0.27	<0.25	<0.23	<0.32	<0.27	<0.32	<0.62	<0.36	<1.5	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.22	
Analyses			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Detections			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HWAD_GW_Action_Level			0.43	200	0.055	5	810	7	0.0016	70	12	0.05	600	0	0	0	0	0	0	0	0	0
HWAD_GW_Action_Level_Hits			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Volatile Organic Compounds  
USEPA Method 8260A (APCL)

Sample ID	Location ID	Sample Date	Depth	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethylene	Trichlorofluoromethane	Vinyl chloride
				/ug	/ug	/ug	/ug	/ug	/ug
IRPMW49-021800-W	IRPMW49	2/18/2000	235.6	<0.21	<0.14	<0.29	<0.28	<0.26	<0.19
IRPMW49-051800-W	IRPMW49	5/18/2000	235.6	<0.12	<0.19	<0.2	<0.28	<0.33	<0.31
IRPMW49-081600-W	IRPMW49	8/16/2000	235	<0.21	<0.14	<0.29	38	<0.26	<0.19
IRPMW49-111500-W	IRPMW49	11/15/2000	210	<0.034	<0.036	<0.044	<0.057	<0.053	<0.068
IRPMW50-021800-W	IRPMW50	2/18/2000	183	<0.21	<0.14	<0.29	32	<0.26	<0.19
IRPMW50-051800-W	IRPMW50	5/18/2000	183.2	<0.12	<0.19	<0.2	18	<0.33	<0.31
IRPMW50-081600-W	IRPMW50	8/16/2000	183	<0.21	<0.14	<0.29	34	<0.26	<0.19
IRPMW50-111500-W	IRPMW50	11/15/2000	185	<0.034	<0.036	<0.044	24	<0.053	<0.068
IRPMW51-021800-W	IRPMW51	2/18/2000	243.7	<0.21	<0.14	<0.29	<0.28	<0.26	<0.19
IRPMW52-021800-W	IRPMW52	2/18/2000	205	<0.21	<0.14	<0.29	<0.28	<0.26	<0.19

Analyses  
Detections  
Minimum Concentration  
Maximum Concentration  
HWAD\_-\_GW\_Action\_Level  
HWAD\_-\_GW\_Action\_Level\_Hits

Semivolatile Organic Compounds  
USEPA Method 8270B (APCL)

Sample ID	Location ID	Sample Date	Depth	1,2,4,5-Tetrachlorobenzeno	1,2-Dichlorobenzeno	1,3-Dichlorobenzeno	1,4-Dichlorobenzeno	1-Naphthylamine	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dimethylphenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene		
IRPMW49-021800-W	IRPMW49	2/18/2000	235.6	<1.4	<1.1	<1.2	<1.2	<0	<19	<1.4	<1.5	<1.4	<1.5	<1.8		
IRPMW49-051800-W	IRPMW49	5/18/2000	235.6	<2.6	<2	<1.9	<2.8	<2.1	<7.6	<1.3	<1.4	<2.1	<1.2	<2.1		
IRPMW49-081600-W	IRPMW49	8/16/2000	235	<2.6	<2	<1.9	<2.8	<2.1	<7.6	<1.3	<1.4	<2.1	<1.2	<2.1		
IRPMW49-111500-W	IRPMW49	11/15/2000	210	<1.4	<1.4	<1.3	<1.1	<1.2	<1.7	<19	<1.4	<1.5	<1.4	<1.5	<1.8	
IRPMW50-021800-W	IRPMW50	2/18/2000	183	<1.4	<1.4	<1.3	<1.1	<1.2	<1.2	<0	<19	<1.4	<1.5	<1.5	<1.8	
IRPMW50-051800-W	IRPMW50	5/18/2000	183.2	<2.6	<2	<1.9	<2.8	<2.1	<7.6	<1.3	<1.4	<2.1	<1.2	<2.1	<2.1	
IRPMW50-081600-W	IRPMW50	8/16/2000	183	<2.6	<2	<1.9	<2.8	<2.1	<7.6	<1.3	<1.4	<2.1	<1.2	<2.1	<2.1	
IRPMW50-111500-W	IRPMW50	11/15/2000	185	<1.4	<1.4	<1.3	<1.1	<1.2	<1.7	<19	<1.4	<1.5	<1.4	<1.5	<1.5	<1.8
IRPMW51-021800-W	IRPMW51	2/18/2000	243.7	<1.4	<1.4	<1.3	<1.1	<1.2	<0	<19	<1.4	<1.5	<1.4	<1.5	<1.5	<1.8
IRPMW52-021800-W	IRPMW52	2/18/2000	205	<1.4	<1.4	<1.3	<1.1	<1.2	<0	<19	<1.4	<1.5	<1.4	<1.5	<1.5	<1.8
Analyses																
Detections																
Minimum Concentration																
Maximum Concentration																
HWAD_GW_Action_Level																
HWAD_GW_Action_Level_Hits																

Semivolatile Organic Compounds  
USEPA Method 8270B (APCL)

Semivolatile Organic Compounds  
USEPA Method 8270B (APCL)

Sample ID	Location ID	Sample Date	Depth	4-Methylphenol	4-Nitroaniline	4-Nitropheol	7,12-Dimethylbenz(a)anthracene	Acenaphthylene	Acetophenone	Aniline	Anthracene	Benzidine	Benz(a)anthracene	Benz(a)pyrene	Benz(b)fluoranthene	Benz(g,h,i)perylene	Benz(k)fluoranthene	
IRPMW49-021800-W	IRPMW49	2/18/2000	235.6	<1.1	<7.5	<14	<2.1	<1.2	<1.5	<1.4	<1.3	<1.6	<8.1	<1.6	<1.4	<2	<1.8	
IRPMW49-051800-W	IRPMW49	5/18/2000	235.6	<1.8	<7.3	<14	<1.1	<6.2	<2	<1.9	<1.6	<1.9	<1.7	<5.1	<1.6	<1.5	<1.6	<1.4
IRPMW49-081600-W	IRPMW49	8/16/2000	235	<1.8	<7.3	<14	<1.1	<6.2	<2	<1.9	<1.6	<1.9	<1.7	<5.1	<1.6	<1.5	<1.6	<1.4
IRPMW49-111500-W	IRPMW49	11/15/2000	210	<1.1	<7.5	<14	<2.1	<1.2	<1.5	<1.7	<1.4	<1.3	<1.6	<8.1	<1.6	<1.4	<2	<1.8
IRPMW50-021800-W	IRPMW50	2/18/2000	183	<1.1	<7.5	<14	<2.1	<1.2	<1.5	<1.7	<1.4	<1.3	<1.6	<8.1	<1.6	<1.4	<2	<1.8
IRPMW50-051800-W	IRPMW50	5/18/2000	183.2	<1.8	<7.3	<14	<1.1	<6.2	<2	<1.9	<1.6	<1.9	<1.7	<5.1	<1.6	<1.5	<1.6	<1.4
IRPMW50-081600-W	IRPMW50	8/16/2000	183	<1.8	<7.3	<14	<1.1	<6.2	<2	<1.9	<1.6	<1.9	<1.7	<5.1	<1.6	<1.5	<1.6	<1.4
IRPMW50-111500-W	IRPMW50	11/15/2000	185	<1.1	<7.5	<14	<2.1	<1.2	<1.5	<1.7	<1.4	<1.3	<1.6	<8.1	<1.6	<1.4	<2	<1.8
IRPMW51-021800-W	IRPMW51	2/18/2000	243.7	<1.1	<7.5	<14	<2.1	<1.2	<1.5	<1.7	<1.4	<1.3	<1.6	<8.1	<1.6	<1.4	<2	<1.8
IRPMW52-021800-W	IRPMW52	2/18/2000	205	<1.1	<7.5	<14	<2.1	<1.2	<1.5	<1.7	<1.4	<1.3	<1.6	<8.1	<1.6	<1.4	<2	<1.8
Analyses				10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Detections				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HWAD -- GW Action Level				180	370	0.042	12	1800	0.00029	0.1	0.2	0.2	0	0	0	0	0	0
HWAD -- GW Action Level Hits				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Semivolatile Organic Compounds  
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Sample ID	Location ID	Sample Date	Deprt	1/bn Benzyl alcohol	1/bn Benzoxic acid	1/bn bis(2-Chloroethyl) methane	1/bn bis(2-Chloroethyl) ether	1/bn bis(2-Chloroisopropyl)-ether	1/bn Bis(2-Ethylhexyl)-phthalate	1/bn Butyl benzyl phthalate	1/bn Chrysene	1/bn Di- <i>n</i> -Octyl phthalate	1/bn Di-n-Butyl-phthalate	1/bn Di- <i>n</i> -Octyl phthalate	1/bn Diethoxybenzene	1/bn Dibenz(a,j)acridine	1/bn Diphenozofuran	1/bn Diethyl Phthalate	1/bn Dimethyl Phthalate
IRPMW49-021800-W	IRPMW49	2/18/2000	235.6	<0	<1.3	<1.9	<1.3	<2.1	<1.7	<1.6	<1.4	<1.9	<1.7	<1.4	<1.3	<1.7	<1.9	<1.9	
IRPMW49-051800-W	IRPMW49	5/18/2000	235.6	<50	<1.4	<1.4	<1.8	<2.1	<2	<1.6	<1.4	<1.6	<1.7	<1.6	<1.5	<1.2	<2	<2	
IRPMW49-081600-W	IRPMW49	8/16/2000	235	<50	<1.4	<1.4	<1.8	<2.1	<2	<1.6	<1.4	<1.6	<1.7	<1.6	<1.5	<1.2	<2	<2	
IRPMW49-111500-W	IRPMW49	11/15/2000	210	<49	<1.3	<1.9	<1.3	<2.1	<2	<1.6	<1.4	<1.6	<1.7	<1.7	<1.6	<1.3	<1.7	<1.9	
IRPMW50-021800-W	IRPMW50	2/18/2000	183	<0	<1.3	<1.9	<1.3	<2.1	<2	<1.6	<1.4	<1.6	<1.7	<1.7	<1.6	<1.3	<1.7	<1.9	
IRPMW50-051800-W	IRPMW50	5/18/2000	183.2	<50	<1.4	<1.4	<1.8	<2.1	<2	<1.6	<1.4	<1.6	<1.7	<1.6	<1.5	<1.2	<2	<2	
IRPMW50-081600-W	IRPMW50	8/16/2000	183	<50	<1.4	<1.4	<1.8	<2.1	<2	<1.6	<1.4	<1.6	<1.7	<1.6	<1.5	<1.2	<2	<2	
IRPMW50-111500-W	IRPMW50	11/15/2000	185	<49	<1.3	<1.9	<1.3	<2.1	<2	<1.6	<1.4	<1.6	<1.7	<1.7	<1.6	<1.3	<1.7	<1.9	
IRPMW51-021800-W	IRPMW51	2/18/2000	243.7	<0	<1.3	<1.9	<1.3	<2.1	<2	<1.6	<1.4	<1.6	<1.7	<1.7	<1.6	<1.3	<1.7	<1.9	
IRPMW52-021800-W	IRPMW52	2/18/2000	205	<0	<1.3	<1.9	<1.3	<2.1	<2	<1.6	<1.4	<1.6	<1.7	<1.7	<1.6	<1.3	<1.7	<1.9	
Analyses		10		10		10		10		10		10		10		10		10	
Detections		0		0		0		1		9		0		0		0		0	
Minimum Concentration		0		0		0		0		4		2		0		0		0	
Maximum Concentration		0		0		0		0		4		16		0		0		0	
HWAD_-_GW_Action_Level		150000		11000		0.0098		0.27		6		100		0.2		3700		0.0092	
HWAD_-_GW_Action_Level_Hits		0		0		0		0		0		0		0		0		24	
Analyses		10		10		10		10		10		10		10		10		10	
Detections		0		0		0		0		0		0		0		0		0	
Minimum Concentration		0		0		0		0		0		0		0		0		0	
Maximum Concentration		0		0		0		0		0		0		0		0		0	
HWAD_-_GW_Action_Level		150000		11000		0.0098		0.27		6		100		0.2		3700		0.0092	
HWAD_-_GW_Action_Level_Hits		0		0		0		0		0		0		0		0		24	
Analyses		10		10		10		10		10		10		10		10		10	
Detections		0		0		0		0		0		0		0		0		0	
Minimum Concentration		0		0		0		0		0		0		0		0		0	
Maximum Concentration		0		0		0		0		0		0		0		0		0	
HWAD_-_GW_Action_Level		150000		11000		0.0098		0.27		6		100		0.2		3700		0.0092	
HWAD_-_GW_Action_Level_Hits		0		0		0		0		0		0		0		0		0	

Semivolatile Organic Compounds  
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Sample ID	Location ID	Sample Date	Depth	Diphenylamine	Ethyl methanesulfonate	Fluoranthene	Hexachlorobenzene	Hexachlorobutadiene	Hexachloroethane	Indeno(1,2,3-c,d)pyrene	Isophorone	Methyl methanesulfonate	N-Nitroso-di-n-butylylamine	N-Nitroso-di-n-propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	N-Nitrosopiperidine	
IRPMW49-021800-W	IRPMW49	2/18/2000	235.6	<1.5	<1.8	<1.6	<1 U	<3.8	<1.4	<1.7	<0.94	<1.8	<0.8	<7.7	<1.6	<8.9	<1.3	
IRPMW49-051800-W	IRPMW49	5/18/2000	235.6	<1.8	<1.5	<1.9	<1.2	<2.3	<8.5 U-	<2.1	<1.7	<1.4	<1.6	<1.4	<1.3	<8.9	<1.3	
IRPMW49-081800-W	IRPMW49	8/16/2000	235	<1.8	<1.5	<1.9	<1.2	<2.3	<8.5	<2.1	<1.7	<1.4	<1.6	<1.4	<1.3	<8.9	<1.3	
IRPMW49-111500-W	IRPMW49	11/15/2000	210	<1.5	<1.5	<1.8	<1.6	<1	<3.8	<1.4	<1.7	<0.94	<2.4	<1.8	<0.8	<7.7	<1.6	
IRPMW50-021800-W	IRPMW50	2/18/2000	183	<1.5	<1.5	<1.8	<1.6	<1	<3.8	<1.4	<1.7	<0.94	<2.4	<1.8	<0.8	<7.7	<1.6	
IRPMW50-051800-W	IRPMW50	5/18/2000	183.2	<1.8	<1.8	<1.5	<1.9	<1.2	<2.3	<8.5 U-	<2.1	<1.7	<1.4	<1.6	<1.4	<1.3	<8.9	<1.3
IRPMW50-081800-W	IRPMW50	8/16/2000	183	<1.8	<1.5	<1.9	<1.2	<2.3	<8.5	<2.1	<1.7	<1.4	<1.6	<1.4	<1.3	<8.9	<1.3	
IRPMW50-111500-W	IRPMW50	11/15/2000	185	<1.5	<1.5	<1.8	<1.6	<1	<3.8	<1.4	<1.7	<0.94	<2.4	<1.8	<0.8	<7.7	<1.6	
IRPMW51-021800-W	IRPMW51	2/18/2000	243.7	<1.5	<1.5	<1.8	<1.6	<1	<3.8	<1.4	<1.7	<0.94	<2.4	<1.8	<0.8	<7.7	<1.6	
IRPMW52-021800-W	IRPMW52	2/18/2000	205	<1.5	<1.5	<1.8	<1.6	<1	<3.8	<1.4	<1.7	<0.94	<2.4	<1.8	<0.8	<7.7	<1.6	
Analyses				10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Detections				0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Minimum Concentration				0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Maximum Concentration				0	0	0	0	0	0	0	0	0	0	0	0	0	0	
HWAD_-_GW_Action_Level				910	1500	240	1	0.86	50	4.8	0.092	71	0.002	0.0096	0.0013	14		
HWAD_-_GW_Action_Hits				0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Semivolatile Organic Compounds  
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Sample ID	Location ID	Sample Date	Depth	Naphthalene	p-Dimethylaminooazobenzene	Pentachlorobenzene	Pentachlorophenol	Phenacetin	Phenanthrene	Phenol	Phenamide	Pyrene	
IRPMW49-021800-W	IRPMW49	2/18/2000	235.6	<1.3	<1.4	<1.5	<1.2	<7.2	<1.6	<1.4	<0.69	<1.5	
IRPMW49-051800-W	IRPMW49	5/18/2000	235.6	<1.8	<1.6	<1.4	<2.2	<1.5	<2.9	<2	<1.9	<0.85	<1.5
IRPMW49-081600-W	IRPMW49	8/16/2000	235	<1.8	<1.6	<1.4	<2.2	<1.5	<2.9	<2	<1.9	<0.85	<1.5
IRPMW49-111500-W	IRPMW49	11/15/2000	210	<1.3	<1.4	u-	<1.5	<1.2	<7.2	<1.6	<1.4	<0.69	<1.5
IRPMW50-021800-W	IRPMW50	2/18/2000	183	<1.3	<1.4	<1.5	<1.5	<1.2	<7.2	<1.6	<1.4	<0.69	<1.5
IRPMW50-051800-W	IRPMW50	5/18/2000	183.2	<1.8	<1.6	<1.4	<2.2	<1.5	<2.9	<2	<1.9	<0.85	<1.5
IRPMW50-081600-W	IRPMW50	8/16/2000	183	<1.8	<1.6	<1.4	<2.2	<1.5	<2.9	<2	<1.9	<0.85	<1.5
IRPMW50-111500-W	IRPMW50	11/15/2000	185	<1.3	<1.4	<1.5	<1.5	<1.2	<7.2	<1.6	<1.4	<0.69	<1.5
IRPMW51-021800-W	IRPMW51	2/18/2000	243.7	<1.3	<1.4	<1.5	<1.5	<1.2	<7.2	<1.6	<1.4	<0.69	<1.5
IRPMW52-021800-W	IRPMW52	2/18/2000	205	<1.3	<1.4	<1.5	<1.5	<1.2	<7.2	<1.6	<1.4	<0.69	<1.5

Analyses  
Detections  
Minimum Concentration  
Maximum Concentration  
HWAD\_GW\_Action\_Level  
HWAD\_GW\_Action\_Level\_Hits

**Explosives**  
**USEPA Methods 8330 and 8330M (APCL)**

Sample ID	Location ID	Sample Date	Depth	Concentration (ppb) by Analyte										
				1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,4,6-Tinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Nitrotoluene	3-Nitrotoluene	4-Nitrotoluene	HMX	Picric Acid	
IRPMW49-021800-W	IRPMW49	2/18/2000	235.6	<0.035	<0.088	<0.097	<0.058	<0.057	<0.53	<0.043	<0.53	<0.05	<0.09	<0.34
IRPMW49-051800-W	IRPMW49	5/18/2000	235.6	<0.035	<0.088	<0.097	<0.058	<0.057	<0.53	<0.043	<0.53	<0.05	<0.09	<0.34
IRPMW49-081600-W	IRPMW49	8/16/2000	235	<0.035	<0.088	<0.097	<0.058	<0.057	<0.53	<0.043	<0.53	<0.05	<0.09	<0.34
IRPMW49-111500-W	IRPMW49	11/15/2000	210	<0.035	<0.088	<0.097	<0.058	<0.057	<0.53	<0.043	<0.53	<0.05	<0.09	<0.34
IRPMW50-021800-W	IRPMW50	2/18/2000	183	<0.035	<0.088	<0.097	<0.058	<0.057	<0.53	<0.043	<0.53	<0.05	<0.09	<0.34
IRPMW50-051800-W	IRPMW50	5/18/2000	183.2	<0.035	<0.088	<0.097	<0.058	<0.057	<0.53	<0.043	<0.53	<0.05	<0.09	<0.34
IRPMW50-081600-W	IRPMW50	8/16/2000	183	<0.035	<0.088	<0.097	<0.058	<0.057	<0.53	<0.043	<0.53	<0.05	<0.09	<0.34
IRPMW50-111500-W	IRPMW50	11/15/2000	185	<0.035	<0.088	<0.097	<0.058	<0.057	<0.53	<0.043	<0.53	<0.05	<0.09	<0.34
IRPMW51-021800-W	IRPMW51	2/18/2000	243.7	<0.035	<0.088	<0.097	<0.058	<0.057	<0.53	<0.043	<0.53	<0.05	<0.09	<0.34
IRPMW52-021800-W	IRPMW52	2/18/2000	205	<0.035	<0.088	<0.097	<0.058	<0.057	<0.53	<0.043	<0.53	<0.05	<0.09	<0.34
Analyses				10	10	10	10	10	10	10	10	10	10	10
Detections				0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration				0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration				0	0	0	0	0	0	0	0	0	0	0
HWAD_GW_Action_Level				1100	3.7	2.2	73	37	370	370	1800	3.4	1	
HWAD_GW_Action_Level_Hits				0	0	0	0	0	0	0	0	0	0	